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MARITIME MEDICAL NEWS

A MONTHLY JOURNAL DEVOTED TO MEDICINE & SURGERY

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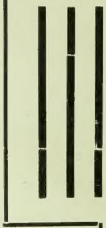

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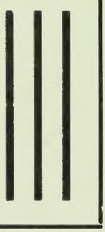

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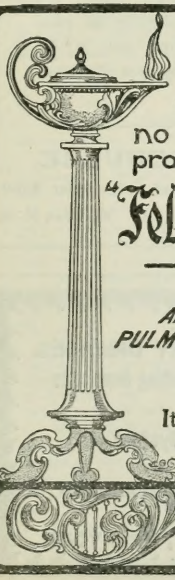

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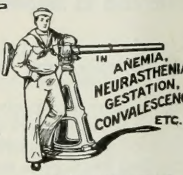

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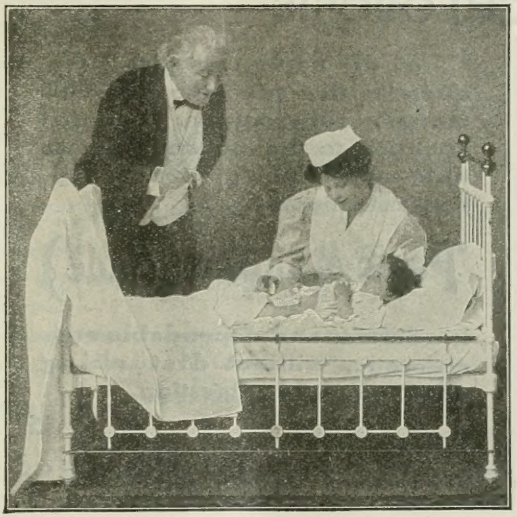

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THE MARITIME MEDICAL NEWS

VOL. XXI., *JUNE, 1909*, No. 6.

WORLD OF MEDICINE

Rheumatic Fever and Valvular Disease

The Lumleian Lectures of the Royal College of Physicians were delivered in March, by Dr. Norman Moore, of St. Bartholomew's Hospital, and have been published in the *Lancet* of April 24, May 1 and May 8. The subject chosen was Rheumatic Fever and Valvular Disease. These lectures maintain the high scientific level of the Lumleian lectures and bear the impress of Dr. Moore's well known scholarship and literary style.

In summing up his lectures, Dr. Moore states that his aim has been to show first, that rheumatic fever is a single definite disease; second, that endocarditis is always an essential part of it; and third that its duration may extend over many years, and that an appreciation of these facts is the safest indication for a method of treatment. Sydenham, in the closing years of the 17th century was the first physician who recognised rheumatic fever, and his description of the symptoms is very clear. When Boerhaave, the famous professor of Leyden, was suffering from severe pains, and reading all authors, ancient and modern, on the subject, the only description he could find of such conditions was in Sydenham's writings and thus the name rheumatism, which implies a certain pathological doctrine, now obsolete, found a place in his teaching and in every general treatise on medicine since his time. After Sydenham, Heberden wrote on rheumatism, and mentions that young children may suffer from the disease. Dr. Moore quotes Sir Thomas Watson's classical paragraph, in which he contrasts gout and rheumatism. Watson is the first writer to note the tendency to involvement of the heart, but this was first observed by Dr. David Pitcairn, who taught at St. Bartholomew's Hospital towards the close of the 18th century. The growth of exact knowledge is slow, and much must be learned before we have a precise knowledge of the ailments classed under the name "rheumatism," and still as in Heberden's time "rheumatism is a common "name for many aches and pains, "which have yet got no peculiar ap- "pellation though owing to very "different causes." Dr. Moore points to the common use of the terms "acute" and "chronic," as descriptive of two forms of rheumatism, while the morbid anatomy of the two diseases, so designated, shows them to be essentially and entirely different. The term "acute rheumatism" should give place to "rheumatic fever." In his remarks on diagnosis Dr. Moore singles out scarlet fever, gonorrhœa and ulcerative endocarditis as having some features which may lead to confusion with rheumatism. The arthritis and endocarditis which sometimes complicate scarlet fever follow its characteristic initial appearances so closely that it is unnecessary to discuss the differential diagnosis. But it is not unusual to

mistake the arthritis of gonorrhœa for rheumatic fever. This arthritis is more akin to pyæmia, and the centre of infection is the urethra, and the gonococci in the urethra are the stock whence those in the joints come, and the arthritis will continue until the urethra is free from these organisms. Apart altogether from the discovery of a urethral discharge, this "gonorrhœal arthritis" should be easily distinguished from rheumatic fever. The swelling and tenderness are not confined to joints, but follow the lines of the tendons and the aponeuroses and fascia generally suffer, notably the plantar fascia. The affected joints feel stiff and the stiffness and pain last longer than in rheumatic fever. Endocarditis is not necessarily present, and as a rule, if present, it presents no physical signs. Permanent damage to an affected joint may occur. The temperature chart also is not the same as that of rheumatic fever, at least when this is under treatment by salicylates: the temperature is higher during the first three weeks, and the pyrexia generally continues much longer than in rheumatic fever.

It is not always so easy to distinguish between rheumatic fever and ulcerative endocarditis, but careful clinical observation will generally suffice. In the first place the pained expression of the rheumatic fever patient is absent, the patient is often remarkably contented or even cheerful and placid. The joints are as a rule free from pain and swelling. The temperature chart shows high readings, usually every day, it may be as high as 104° F. Cardiac murmurs may not be heard. Evidence of emboli, such as enlarged spleen hæmaturia or hemiplegia may be observed. The illness may be long continued, and, the patient never recovers. Treatment by the salicylates is without any effect on the symptoms or temperature.

The cardinal features of rheumatic fever are endocarditis and arthritis. Endocarditis is always present, and generally produces some permanent alteration in one or more of the valves. Fifty years ago the question was frequently discussed whether endocarditis or pericarditis were the more common complication; to-day pericarditis is regarded as rather rare, perhaps eight per cent., while endocarditis is always present. It must be regarded as the central condition in the disease. "If no evidence "of endocarditis is to be found "throughout an illness of which a "symptom is arthritic pain then that "illness is not rheumatic fever." The most obvious symptoms of rheumatic fever are the pains in the joints, with swelling, and sometimes redness. The deepest symptoms are the alterations of the heart sounds. The former can be observed by anyone, the latter only by a trained observer.

The affected joints of rheumatic fever always recover completely, and when, in cases dying from post-rheumatic valvular disease, the joints are examined, no morbid changes are found in them.

Next to the endocardium and the joints, comes the temperature. The commonest type of temperature chart shows a gradual fall from the time of admission to hospital, and commencement of salicylate treatment, for two or three days, then a normal temperature for some days, then a rise to 99° or slightly higher for a day or two, and then normal or subnormal for two or three weeks. "The slight "rise on one day, or continued for "two or three days, of the week suc- "ceeding a pause of several days "which itself succeeds the first defin- "ite fall of temperature to the normal "point is characteristic."

Evidence of endocarditis, multiple transient arthritis, and this typical

temperature alone are grounds for a diagnosis of acute rheumatism.

As to the pathology of rheumatic fever, its resemblance to diseases caused by definite organisms is too great to permit of any other hypothesis being accepted at present. It is considered an infective disease. The presence of an organism has not been proved, nor its point of entrance into the system, but "whatever its "point of entrance and line of travel "the endocardium is to be regarded "as the invariable centre and primary "region of growth of the organism "of rheumatic fever and the swollen "joints as so many colonial settle-"ments proceeding thence." The disease belongs to the first half of life. In the event of attacks occurring after middle life it is difficult to exclude the possibility of the patient having had an attack in early life, but Dr. Moore inclines to the belief that, as in measles and mumps, persons beyond middle age may be attacked for the first time.

The duration of the disease is indefinite. The exact day of its commencement can rarely be fixed. The date of its absolute termination is always obscure. It probably continues not less than three weeks after a normal temperature is reached. The question is one of the life-time of the organism. The bacillus of enteric fever generally dies out within three months. The tubercle bacillus may exist for fifty years in the body. The organism causing rheumatic fever is certainly not so long-lived as the tubercle bacillus, but it lasts longer than the pneumococcus in lobar pneumonia. Which does it more nearly resemble? Dr. Moore holds that there is nothing unlikely in the view that the several attacks of rheumatic fever from which many patients suffer are really successive developments of an organism which remains in the endocardium throughout the series of attacks. The fever then is of variable duration. Rarely it may run its course in two months. It may last from three to ten years or more. A short attack is more probable after thirty years of age than before, and a long attack is most likely to occur when the disease begins in early childhood. The patient very rarely dies during a first attack. But this first attack, developing valvular disease will ultimately cause death in a large percentage of cases.

The most common valvular lesion is mitral regurgitation. The most distressing and crippling is mitral stenosis. Few men with mitral stenosis reach 50 years of age. In mitral disease death is generally gradual and preceded by dropsy, and in aortic disease there is always a permanent risk of sudden death. The hypertrophy of the heart in mitral disease rarely increases the heart to more than twice its weight, but in aortic disease the heart may weigh 36 or 38 ounces, or nearly four times its normal weight.

The treatment of rheumatic fever by Sydenham was based on the theory that it was an inflammation. The main feature was blood-letting, ten ounces a day for three or four days. Meat was forbidden, and the patient was to be kept out of bed some hours every day. A hundred years later very much the same treatment was prescribed, perhaps less venesection. Then came the treatment by alkaline salts, acetates, etc. All these are now obsolete, and the salicylates are more efficient than any other remedies. And one of the greatest modern improvements in treatment is insistence on rest in bed. Dr. Moore urges a continuance of rest in bed for at least three weeks after the last rise of temperature.

Gastro-Intestinal Disturbances of Arterio-sclerosis. J. J. Gilbride, Philadelphia (*Journal of the American Medical Association*, March 20), calls attention to the disorders of the digestive tract due to general or localized arteriosclerosis. Within a few months he has treated ten cases of this class, several of which he reports in this paper. The patients are usually over 40 years of age. The symptoms are generally, first, abdominal pain, paroxysmal in the beginning, later becoming continuous, and next to this in frequency is weakness and sometimes loss of weight, the latter being due, in part, to the dieting for the dyspeptic symptoms. Abdominal distention and belching are often present and the association of dyspeptic symptoms with weakness and loss of weight may cause suspicions of malignant gastric disease. The appetite may be normal, increased or decreased, the bowels are variable, the urine is frequently lessened in amount and some patients suffer from vertigo and a few from visual disturbance. It is important to determine the blood pressure and to some extent this can be estimated by the amount of pressure necessary to arrest the pulse in the radial. It is advisable also to analyze the gastric contents. The treatment in the cases reported is given as ten drops of tincture of strophanthus three times a day and theobromin sodium salicylate, five grains three times a day. In one case dilute hydrochloric acid ten drops three times a day was also given. An analysis the conditions in the various cases is given as follows: "The conditions of "gastric functions in four of those "cases were: motility increased in "three; free hydrochloric acid, a "trace in one and absent in two, nor-"mal in one; absence of lactic acid "in all four, and no Oppler-Boas ba-"cilli found. Peptic digestion was not "determined in those cases, but I "made an analysis in one other case "recently and found peptic digestion "to be normal, although hydrochloric "acid was absent. In one patient, "(Case 3) no gastric analysis was "made. Weakness and loss of weight "are prominent symptoms in some "cases. The abdominal aorta was "tender in all cases. The association "of pharyngitis in two cases is of in-"terest, as its symptoms had been "misleading. Gastroptosis was pres-"ent in only one case. In some cases "nitroglycerin or the nitrites give re-"lief when other remedies are of no "benefit. All of the patients whose "cases are reported had been dieted "and drugged for dyspepsia without "relief."

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Gall Stones In the *Lancet* of May 8 there is a lecture by Herbert F. Waterhouse, of Charing Cross Hospital, on Gall Stones. He adopts the views of Mayo Robson, Moynihan and most surgeons who have a large experience in the surgery of the biliary tract.

Biliary calculi though far most frequently found in the gall-bladder may be found in any of the biliary ducts, and even in their fine tributaries in the liver substance. The number and size of the gall-stones have no relation to the symptoms they produce. A very small stone may cause severe symptoms, a large concretion, or a large number may give little trouble. Little is known as to the mode of formation of the calculi. Mr. Waterhouse is convinced that typhoid fever is a potent cause of gall-stones. In 25 per cent. of his cases there has been a history of typhoid fever. Gall-stones are more frequent in women than in men, especially in indolent people over 40; they are also more frequent in private practice than in

hospital patients, and among large eaters than those who take alcohol freely. Gall stones are very common. They are found at necropsies in 9 per cent. of all adults and in 27 per cent. of women over 50 years of age. Mr. Waterhouse has been surgeon for many years to the Victoria Hospital for sick children, but has not once found gall-stones in a child under 12 years of age.

As to symptoms, there may be none, or at least none recognised by the medical attendant. But in many cases stones in the gall bladder give rise to many and varied symptoms, sometimes of great gravity. In the great majority of cases the patient refers all his distress to thestomach. "The great "majority of patients possessed of "gall-stones have been treated for "months and even years, for dyspep- "sia, chronic gastric catarrh, pain re- "ferred to the epigastrium, and flatu- "lent distension of the stomach, *i.e.* "for the conditions of which they "themselves complained, whereas the "real cause of their suffering and ill- "health was the presence of calculi in "the gall bladder." Many suffer from vomiting, pain in the right shoulder, nausea, distaste for food. There may be no pain over the gall-bladder. Jaundice is quite the exception in cases of gall-stones, except in the case of impaction. Intermittent jaundice points to calculus in the common duct, acting as a ball-valve. Persistent jaundice lasting many days, and with a distended palpable gall-bladder is not likely due to calculus; rather to pressure from without, as in cancer of the head of the pancreas.

The vomiting in an attack of biliary colic may at first be simply of the stomach contents, but it often becomes bilious. In obstruction of the cystic duct it is still possible for bile to pass through the common duct into the duodenum and thence into the stomach. But in obstruction of the common duct this cannot occur. Sometimes, during an attack the liver may be noticeably enlarged, and the gall-bladder very tender. In the case of an ascending infective cholangitis reaching a gall-bladder containing calculi, we have infection of its contents and distension of the bladder. But, if the gall-bladder, owing to previous attacks of inflammation has become shrunken and thick-walled, no distension can take place, and deep palpation even under chloroform may fail to find it. A noticeable symptom in some cases is the occurrence of rigors with fever, resembling malarial attacks. This generally indicates obstruction of the common duct and infection and is a serious symptom.

While only a small proportion of patients with gall-stones suffer from biliary colic, this is, when present, the most prominent symptom. It is an excessively painful affection; one of the severest types of suffering. Morphia in large doses is generally needed. Waterhouse speaks favourably of antipyrin in 10-grain doses every hour for four hours. Hot fomentations are soothing. In cases of excessive pain chloroform may be given, and, if there is no evidence of inflammation gentle massage over the gall-bladder and ducts may be employed.

The treatment of all forms of calculous cholecystitis is purely surgical, and when the diagnosis is made there should be no delay. The best operation is to open and drain the gall-bladder. Drainage of the gall-bladder is practically never followed by the re-formation of calculi. If the gall-bladder is much diseased, with thick and sodden walls it may be removed. There are cases of cholecystitis of microbic origin, in which no

gall-stones are found on opening the bladder. The treatment for these is opening and draining the gall-bladder. The results are most satisfactory.

Prognosis in gall-stone disease is very uncertain. In some cases with trifling symptoms death has occurred. An infected and distended gall-bladder may rupture, or a calculus may ulcerate through, with general septic peritonitis as a result. And on the other hand some cases with the gravest symptoms have recovered without operation.

The most frequent causes of death are (1) microbic cholangitis. (2) perforation of bladder or ducts. (3) carcinoma of the gall-bladder. Waterhouse has never seen carcinoma of the gall-bladder as a primary growth apart from gall-stones, and he believes that irritation by gall-stones is the usual cause of carcinoma of the gall-bladder. Waterhouse follows Moynihan in advising early operation in all cases of gall-stones. The early operation is one of the easiest and safest in surgery, while operations in old cases, with adhesions, and in the presence of jaundice are difficult and dangerous.

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Cancer of the Breast.

Dr. Maurice Richardson of Boston, in the *Journal of the American Medical Association*, May 15, 1909, discusses the treatment of cancer of the breast and says it still demands the most thorough and early excision. His own methods have grown more thorough as his experience has enlarged. Cases must be judged at the time of the operation as favourable, unfavourable, or hopeless, and each of these headings permits greater accuracy of subdivision; very favourable, favourable, not positively favourable, doubtful and hopeless. A small tumour in the centre of the breast, if there are one or two lymph nodes involved, must be regarded as an early case and especially favourable. A small tumour with many and large axillary nodes, but easily moveable and dissected makes a favourable case. A tumour, no matter what size, so long as it can be removed by a wide margin of safety presents a favourable outlook. Infiltrations are unfavourable though not perhaps hopeless, and wide infiltrations, involvements of ribs and axillary vessels make the outlook practically without hope. The chief cause of delay in mammary cancer is in the patient's unwillingness to admit that serious trouble exists, and this is increased by the advertisement in the lay press of cancer cures, etc. A second cause is in the too favorable diagnosis of inexperienced physicians. Richardson goes at length into the diagnosis, emphasizing the symptoms that are most likely to lead to error. He gives little weight to pain, which justifies operation in total absence of other signs only for its own relief. But he gives it great weight when in the absence of other signs the breast is large and evidently has something in it. The influence of heredity on a doubtful diagnosis should be very great, and he would not exclude the possibility of a beginning cancer except after exploration. Tumours in both breasts do not exclude malignancy, and there is no safe rule in such cases except as treating them all alike as malignant until they have proved benign. The examination of the axilla gives important evidence, and in all cases the surgeon should examine for remote metastases, lest he subject his patient to a useless operation. Of all the metastases the most malignant are those of involvement of the cerebrospinal axis. Metastases in the abdomen, however, must lend their weight to a doubtful diagnosis and a persistent cough without adequate signs in

the lungs always strengthens the diagnosis. Richardson condemns the use of the hollow punch or knife section of doubtful tumours on account of the danger of autoinfection, and he has seen disastrous results from their use. There remains in many cases, however, the hope in human frailty; that the operation will reveal a better condition of things than we have anticipated, and he gives illustrations from his own experience. The prognosis depends on the operative findings and sometimes the surgeon's instinct makes him decide the outlook bad without being able easily to give a reason for it. Prognosis based on the statistics of many surgeons is, in his opinion, not of very much service. Cases that are recognised early enough to permit the widest removal, are widely different as regards prognosis from those in which thorough dissection is doubtful. We probably err most frequently in giving a too favourable prognosis, but sometimes we give one that is worse than the facts justify. He does not put implicit confidence in the three-year limit. Recurrence is influenced in favourable cases especially by the thoroughness of extirpation, and except for pain and annoying discharges the prognosis in advanced cases is such as to forbid operation. In considering the immediate prognosis he looks on the most extensive operation for breast cancer in patients with good vital organs as practically free from mortality. The great blot in the surgical treatment of this condition is unjustifiable delay. The burden of proof of the nonmalignancy of the disease is on those who advise palliative measures. The only exception to the rule of the universal exploration are those cases of multiple tumours of both breasts which are clearly retention cysts, and another exception is the breast tumour which appears after the removal of a benign growth or simple cyst, still another is the appearance in the other breast of a tumour like a benign one that has been removed from the first. But, barring contraindications, such as are found in the heart, lungs, kidneys and other organs, and in certain constitutional diseases, a better rule is to remove every tumour of whatever nature and at any age.

EDITORIAL

AS the date for our annual Maritime gathering approaches we again exhort our confreres of Nova Scotia and New Brunswick to make a point of being well represented at Charlottetown on July 14th and 15th next. We are authoritively informed that a good programme is in sight and everything points to a very successful meeting. The Maritime Medical Association in its annual meetings should be truly representative of the best that is in the profession down here by the sea, and the provincialism or singularity which taints and stifles endeavour in other lines in these eastern provinces, should have have no resting place in the medical profession. If we are to interpret rightly the ideals of the founders of our chief organization, we must rally to its meetings and we should strive in every way to make the coming one at the capital of our beautiful Garden of the Gulf, one to be remembered.

Come to Charlottetown this year and see the loveliest spot on earth and enjoy the hospitality of the P. E. Island profession already noted as Premier of Hosts!

MYOPIA.

(Read before the St. John Medical Socieiy, February 17th, 1909.)

By G. R. CRAWFORD, M. D.,

St. John N B.

NEAR-SIGHT would better designate what is described in the books as myopia.

The word myopia conveys only the idea of a single symptom, and that not a constant one. Near-sight, being so prominent, conspicuous and characteristic a symptom always conveys a good idea of the disease itself. The "blinking" myopic eye generally only reveals itself when an effort is made to see distant objects. With near at hand objects there is no need to squeeze the eyelids together. This unsightly grimace becomes quite unnecessary. With very many this defect in focussing distant objects remains for a long time unnoticed. Those individuals seem to know that everything far away looks indistinct and hazy. They believe, however, that everybody sees just in the same way; that they are no worse off than their neighbours. When the near-sight begins in the early years of school life, the defect is generally first observed by the teacher. Blackboard work becomes especially difficult or impossible, and in the absence of any external manifestation of disease, the conclusion is soon arrived at, that the pupil is near-sighted and the home report is made accordingly.

The accidental holding up of a concave lens, or the use of the eye-glasses of a friend sometimes is the first indication that the individual is worse off as regards distant visual power than the companions or friends whom he constantly meets in daily social intercourse.

The nipping, or blinking of the eyelids, although it gives the individual a most unsightly appearance, actually does help the near-sighted to see in the distance more clearly. This "blinking" makes the eye see better, because by this act the pupil is made smaller. Vision would be made still more distinct if during this blinking the pupil could maintain its normal round shape; but this is impossible; the squeezing of the eyelids together must, to a certain extent, change the round pupil to a transverse slit. The altered shape of the pupil will of course, change the contour of the diffusion areas. Instead of being circles they become transverse lines. Those transverse lines are better seen than the large circles. The gain in distinctness would be much more marked, if a small disk, with a central circular opening, was held up before the eye. The diffusion circles, formed in this way would be so small that a very great and marked improvement in vision would be noticed. Now all eyes which do not accurately focus the entering rays of light, must see everything blurred and indistinct. The rays form diffusion areas on the retina instead of focal points. The greater and the more annoying the diffusion will be in the higher degrees of refraction errors.

Diffusion circles or areas, are simply explained by following the rays, supposed to come from an infinite distance (parallel rays) from their origin to where they are focussed on the retina. The eye is supposed to be at rest as far as any accommodation effort is concerned. Remembering this it is easy to understand that if the retina is situated exactly at the focal

point of those rays, clear and distinct images will be formed, and blurred and hazy images if situated anywhere else. In hypermetropia the short axis eye, parallel rays cannot be conveyed to a focus until they reach a point behind its retina. On its own retina the rays can be well represented by the section of a cone perpendicular to its base. This of course must be a circle; the circle of diffusion formed in the long-sighted or hypermetropic eye. In myopia, the long axis eye, the rays of light meet at a point before they reach the retina. At this point they cross and continue as divergent rays in a backward direction, until the retina of the near-sighted eye is reached. Here we have another circle of dispersion just as in the long-sighted eye; the only difference being that the former is made by the cut section of the converging cone of light; the latter by a cone of light made up of diverging rays, having its apex at the crossing point. If the above attempted explanation is fully understood, no difficulty presents itself to an intelligent comprehension of the sources of the confusion and in distinctness of vision in all eyeballs deviating in antero posterior length from a normal standard designated emmetropia.

A few words further about those circles of diffusion as occurring in the near-sighted eye.

In Old Age.—The diffusion circles become much smaller. This is caused by the very considerable diminution in the size of the pupil. A moderate amount of near-sightedness in an aged person does not interfere to a great extent with good distant vision.

The Shape of The Pupils.—The shape of the pupil will, of course, influence the form of the diffusion circles. Perfectly round pupils, as they normally should be in the myopic eye will throw upon the retina perfectly round diffusion areas. If the pupils be distorted in shape by operations, iris adhesions, etc., so as to become oval or irregular, the blurred areas will be oval or irregular, and the confusion and visual indistinctness will be greater.

Myodesopsia or Muscae Volitantes.—Those floating specks like flies or parts of broken cobwebs are seen floating before the eyes in all refractive conditions seem to be specially troublesome and annoying in myopia. Those appearances are not regarded as pathological. Perhaps there are very few eyes entirely free from them. They are regarded as the remains of vitreous cells embryological in type, which have not been absorbed. They never seem to impair the vision to any noticeable degree. I myself ever since I could see anything have noticed those spectres constantly floating over my visual field.

Those shadows when thrown upon diffusion circles of large size have plenty of room to move about in all directions. When the near-sighted eye is corrected by suitable lenses and all the entering rays focussed to points upon the retina, they may be somewhat dimmed by the obstruction of the light, but as they are points, there is no room for shadows.

Practically this is worthy of specially noting, and always insisting upon the patient who is troubled in this way to have a very careful examination as to the refractive condition of the eye. Sometimes those symptoms entirely disappear when any error of refraction found, is corrected with a suitable lens. Those muscae are a source of worry and anxiety to many patients; being looked upon as a symptom of beginning cataract or other serious disease.

Some Doubtful Advantages Which The Near-Sighted Eye Seems To Possess.—The images of objects (seen at their own far point) are larger than those of the normal eye. The retina of the myope, as explained above is situated, at a greater distance from the nodal point (the crossing point of the rays), therefore the retinal image must be larger. The angle made upon the retina is always in proportion to the distance of this membrane from the nodal point of the eye.

This advantage is, for the most part lost, when the near-sightedness is corrected by a suitable lens. The increased size of the retinal image is not quite done away with; even the fully corrected myope has somewhat larger images than the emmetrope.

Corrected myopes will complain that their glasses make everything small; it does to them, but after all the images, in spite of the correcting glasses, are larger than in the normal eye.

Old Sight Does Not Come On So Early in The Myope.—This is easily understood when we consider that the emmetropic eye has so much larger range of accommodation; from infinity to a comfortable reading distance of from 8 to 10 inches. The myope may have a far point, at most, of from 12 to 18 inches. At this distance he will not require any focussing effort. Only when wishing to read at a nearer point than 18 inches will there be any necessity for using his ciliary muscle at all.

Changes in The Refractive Power of Lens as Age Advances.—The refractive power is lowered. It is reduced at the age of about 80 from 2 to 2.5 D.—so that if the eye was near-sighted in youth to that degree, in old age it would become (by this change in the refractive power of the lens) virtually emmetropic or normal.

Changes in Lens Tissue in Beginning Cataract.—The condensation of the lens tissues increases its refractive powers to the degree that the individual can lay the reading spectacles aside. This "second sight" is very pleasing to the patient. The fact that distant vision is not so good is overlooked; but it is so, and distant vision is very much improved with a concave lens. Instead of this "second sight" remaining good; it only furnishes a diagnostic sign of commencing and rapidly increasing opacity of the crystalline lens.

An Important Complication, Liable in Any Form of Refraction Error: but Specially in Myopia.—Spasm of accommodation is perhaps more frequent in young nervous delicate children, chiefly girls. The books say that the patients have been straining their eyes: overworking their ciliary muscle. However true this may be in normal or far-sighted individuals, it cannot be true of the subjects of myopia. The near-sighted have no need of straining their ciliary muscle; indeed in most cases it would seem there was no need to use it at all. The strain comes upon the converging muscles.

What seems a better explanation of the cause is, that those young myopic patients have not yet learned to dissociate accommodation and convergence. They must converge, at least into the far point of their eyes else they cannot see. This converging is constant, and usually calls forth an unnecessary, and strong impulse of accommodation. This perhaps, causes the spasm. It might be aptly compared to a cramp in one of the muscles of the leg. This contraction, so to speak, may be called a purposeless act; the will has nothing to do with it. The contraction passes all physiological bounds; the muscle appears

to be entirely indifferent from the normal act; it is not called forth by the will as in the case of cramp of the leg; it will not relax when we so desire.

However caused these cases of spasm of accommodation do occur, and as a rule take on a tonic form. The ciliary muscle remains firmly and strongly contracted. The accommodating power is at its greatest height. The eye, if normal, is made myopic. If the refraction is that of myopia, the near-sight is increased.

Spasm of accommodation is sometimes hard to make out, and it is important that everything in connection, with the patient's complaints and disabilities should be most carefully enquired into. When testing for glasses it will often be found that a glass which has been accepted as comfortable a few minutes previously will be refused. This would indicate, if there were a spasm, it had become momentarily relaxed. This alternate accepting and refusing glasses of the same strength, or different strengths, serves as a sort of cue to the causation of the myopia, or its rapid increase or decrease. Sudden changes of this kind must be changes in the contracticle power of the ciliary muscle. If, after the most careful study and testing in the ordinary way, with concave lenses, we find that the patient is made no better, or only temporarily improved, no further trying of glasses should be resorted to. The patient instead of having myopia of any degree, may be hypermetropic. This can only be aascertained by a cycloplegic; the prolonged use of atropine. The ciliary muscle being completely paralysed in this way, no difficulty will then be in the way of absolutely correct diagnosis of the refractive condition present.

Taking into consideration all immunities and advantages possessed by the myopic eye, the fact remains, that from a working standpoint, in myopia, we have a very satisfactory pair of eyes. The external and internal muscles of the eye in their action seem to be yoked together. The ciliary muscle works in association or in harmony with the internal recti muscles, and those again with the circular fibres of the iris. In the normal eye for every impulse to effect accommodation, a like impulse is transmitted to the two converging muscles; also an impulse is sent to the sphincter of the iris; so that we have an associate action of accommodation, convergence and pupillary contraction. Now in myopia or hypermetropia this harmonious action is disturbed, to a greater or lesser degree, according to the refraction error. Everything appears to be at sixes and sevens. The accommodation muscle in myopia of high degree has nothing at all to do. The muscles of convergence are overworked on account of the near approximation which is necessary. In this way asthenopic symptoms are developed, and are apt to continue to annoy and worry the patient until the working partnership between those associated muscles is permanently dissolved.

The muscles learn to act, so to speak, independently of each other; but if, the refraction error amounts to any considerable degree the process is a long one, attended with much worry and a complex of very annoying symptoms. The two eyes were in their muscular action intended to work in harmony, else a race of mankind of the Cyclopean type would have been created. The normal eye adjusted for parallel rays is the correct approach to perfection of which the visual organ is capable, and it therefore cannot be equalled or surpassed as a seeing organ by any other form.

Axial Myopia.—What causes it? Many theories have been put forth

such as heredity, arrested or abnormal development, relative shortness of the optic nerve, choriditis, etc. None of the theories are entirely in harmony with the fact, but, careful investigation has pretty well established the following conclusions: Myopia is largely confined to the civilized and cultivated races of mankind; that the strain upon the developing and growing eye during the educational period of youth has a strong tendency to cause a misshaping of the eyeball in the way of increased length from before back. Investigations of the infant eye so far from showing congenital myopia, the very opposite refractive condition was found, viz., hypermetropia. Myopia was rarely or never found between the ages of *four* and *seven* years. Even between the ages of *six* and *thirteen* only about *one per cent.* of myopia was found. Between these ages (six and thirteen) in 500 eyes examined all but seventeen were emmetropic.

This would seem to show that the *developing period from hypermetropia towards emmetropia* seemed to be between the ages named. Now it might be fairly assumed that if the eye was not subjected to undue strain, about this age—the age when it might be said *there was a halt in the evolution of the hypermetropic eye, at the normal standard*, viz., emmetropia, this halt might remain permanent.

Now comes the unfavourable influence of the educational period of life, say between the ages of *ten* and *twenty-one*.

The constant work upon objects in close proximity to the body during the period of vigorous development, must be, and statistics have proved it to be, the most important factor in the development and increase of myopia. Even heredity, which is so important in the etiology of most other diseases (although it must and does actually have some influence) seems to be less potent in this eye affection. As a matter of fact children of hypermetropic parents, and who themselves were hypermetropic up to the eleventh year of their age, became near-sighted without any apparent cause other than that just referred to, viz., *constant and prolonged close eye work.*

In the German schools there appears to be a constant upward tendency of myopia from the primary grade 7 per cent., to the preparatory school for the university, where it reaches nearly 50 per cent. *How does close work injure the eye?* The eyeball is enclosed in a muscular funnel with the apex situated in the orbit. It may be said to be tightly clasped between all of the extrinsic muscles, especially, the two recti and the two obliques. The convergence which is constant and of a high degree, if there is myopia, causes a sort of flattening and elongation of the eyeball in the direction of the posterior pole of the eye. The compression of those muscles, upon the veins which have their exit immediately beneath; the pressure on the veins of the neck on account of the position of the head in the near work also contribute to the elongation, by causing internal pressure by stasis of the blood. Add to all this, if you will, some predisposition, in hereditary tendency to over-development in a certain direction, we have all the factors which may lead (unless the greatest precautions have been taken) to a very serious form of myopia of a very high degree, bringing about changes in the posterior part of the eye which may ultimately destroy the usefulness of the organ.

With regard to the treatment: first will be mentioned that which is least

important; leaving for the close of this paper the indispensable hygienic and prophylactic measures which properly carried out have been so eminently successful. Distance glasses may be ordered for myopia of moderate degree viz., near-sight of about (2 D.) two Dioptres. Very high authorities consider it a matter of indifference as to whether or not spectacles of this strength are worn constantly.

I have always asked the patient to use such glasses for near and distant work. The young myope can very well do without the little help obtained by the slightly enlarged images which the unaided eye affords. The keeping of the ciliary muscle at work up to the normal standard should be aimed at in the young and vigorous who have myopia of a low degree. In the higher degrees of myopia (2-7 D) glasses are necessary for distance and desirable for near work as well, on account of the very great ease it gives from the converging strain. As the range of accommodation is small in these cases, a more comfortable correction would be a lens about 1 D below the full amount of the near-sightedness. As age advances the full correction will not be tolerated for near work. Two sets of glasses must then be ordered viz., a strong pair, nearly to full correction, for distance, and a much weaker pair to remove the working distance to the point desired.

Finally it may be well to repeat, that the most important part of the treatment, prophylaxis, must begin long before the spectacle period, with the hope that if this is carefully and systematically carried out, those aids to a crippled and deformed eye may never be required.

With children before they enter the public institutions of learning, the parents alone are responsible. Little children should be required to do nothing, involving a strain on the eye. They should not be allowed to critically examine pictures or engravings, small toys, etc. Their games should keep them walking or running about; best of all in the open air. Asking a gentleman to tell me what a "Kinder-garten was, as I had not seen one in operation, he answered "that it was a supervised play ground for infants." If kinder-gartens keep that idea in view, all very well; but if the idea is to gatner a lot of children of tender age together in a small room, and set them straining their eyes over blocks and pictures and small objects, I would incline to the opinion, that "kinder-gartens are useless or worse." The little ones are taught to play right and say "little pieces," but I think that it would be cheaper and better to have kindergartens in their back yard with the mother supervisor and teacher.

After the completion of the 6th year (many think it should be the 7th) the children are sent to school.

The prime considerations for the prevention of straining the eyes are merely the suggestions of good common sense and judgement. What is wanted is (1) light of good quality, and sufficient in quantity; (2) Well constructed and properly proportioned seats and desks; (3) Good ventilation; (4) The keeping of the head and body straight in reading and writing. Many think vertical writing is easier on the eyes than the ordinary sloping form; (5) Good print: books having too fine print should be banished from the school; (6) The barbarous practice of making the little girls strain their eyes over fine fancy work or sewing, I trust will never be more heard of either in our public or private schools.

In the matter of lighting school rooms, a good average is set at about one square foot of window surface to five square feet of floor space. The light should come from the left for obvious reasons. Single seats and desks in rows well separated, so the left row will not overshadow the next row to the right. The windows should not face the south. In very large rooms, however, there is no choice.

Writing and Reading Must Always be Discontinued at Twilight.—Any person can soon convince himself that he does not possess more than half his full visual power during twilight. A rough and fairly correct idea of this can be obtained by a simple test. The finest print with good daylight can be easily read at about 18 inches distance. If the print must be brought nearer, say, 9 inches, the illumination is insufficient; near work must be promptly stopped.

Desks and Seats.—A few simple rules will be sufficient. The width of the seats should be about the length of the thighs. The height of the desk from the seats should be a little over 1/8 of the height of the body. A plumb line dropped from the edge of the desk to the edge of the seat should fall distant from it about 1½ inches. This would of course, interfere with the pupil's rising and passing through. To obviate this the seats or desks should be made moveable. Of course all seats or desks should be made adjustable, so the teacher can have them suited to the age and size of the pupil.

Writing Material.—Slates and pencils are now very properly discarded in all up-to-date schools. Lead pencils and white paper have taken their place. Pen and good black ink is best of all, and is used in some schools where the extra cost is not a consideration.

Size of The Type.—Height of let-Height of letters should be 1-16 of an inch. Letters should be separated 1-32 of an inch. The lines should not be closer than 1-10 of an inch; better 1/8 of an inch. To prevent inconvenient movement of the eyes the length of the lines should not exceed four inches. The number of study hours during each week should not be too long. A good average for home and school study would be as follows:

Between the ages of seven and eight, 24 hours. During the ninth year, 28 hours. Tenth and eleventh years, 36 hours; twelve to fourteen years, about 42 hours.

Rest between the study hours is very important; at least ten minutes' intervals should be insisted upon. If more than two hours follow in succession, an interval of fifteen minutes should be allowed. During the intermission the pupils must go out of doors unless the weather is wet or stormy. All up-to-date schools now have an inside play room in such cases.

A medical inspector of the public schools seems now to have become a necessity. No city in America of the size and importance of St. John is without an official of this kind.

The matter is being taken up by the press, and the question fully discussed. It is hoped that the usual Cry of Economy of the city's finances may no longer prevail in the matter of such an important reform.

MEDICAL WORK IN REFERENCE TO QUARANTINE.

By DR. R. C. RUDDOCK, Quarantine Officer,
St. John, N. B.

(Read before the St. John Medical Society.)

EARLY in the 19th century—as near as I can learn, in the early twenties—a Quarantine Station was established at Partridge Island. The first Medical Quarantine Officer was Dr. George Harding. The facilities for the carrying on of the work were very meager at that time. No buildings of any account to speak of for the accommodation of patients, and lack of water was another source of danger and suffering—to my mind the most serious factors in combatting the worst epidemics in the history of Canada. The dreaded, and in those times common typhus, infecting whole ship loads of immigrants, who, overcrowded, in an unsanitary sailing vessel, which made the run from the Old Country anywhere from 30 to 90 days, came into port a floating, deadly menace to the people of our city and country—perhaps in the history of the quarantine, no epidemic left such a deadly trail in its wake, as the epidemic of ship-fever in the summer of 1847, when 2,000 Irish immigrants were landed, and about 1,200 perished from this disease, the fatality being greatly increased by the co-operating influences of poverty and its concomitants upon the system of the emigrants prior to embarkation, to impurities of atmosphere, and the crowded holds of vessels, to neglect of personal cleanliness, to impure water and the want of medical attendance and supervision during the passage, and lastly from insufficient attention and hospital deficiencies at Quarantine Station at Partridge Island and insufficient supply of wholesome water.

In reference to the exposure which the patients suffered in this awful harvest of death I am credibly informed that scores of emigrants slept out of doors at nights on the damp ground with the cold, raw fogs of the Bay of Fundy rolling over them, without any other covering but their daily wearing apparel. Just imagine the sudden transition from the heated hold of a crowded vessel to the cold night air and damp ground of the Island. Is it any wonder that there was such a large death rate ? In my mind I wonder that there was a man left to tell the tale. Of course, some were housed and better cared for than others, but the small building of the Quarantine Station, designated as a hospital would not hold more than 100 if they used the floors for sleeping on, which they did—others got under tents, while the remainder lay under the bare heavens. And the cadaverous effluvia emanating from the decomposing bodies which were buried in a shallow trench, as high as forty in one pit with a few inches of earth over their bodies, which were deposited without coffin or shroud—made the air sickening with its odors.

Imagine the fight of one lone doctor in such a hopeless and dangerous fight, unsupplied with mostly all that he should have had, and fighting it all alone. Finally Dr. Harding was stricken with it, but through good nursing, good medical attendance and

better hygienic surroundings he recovered.

When Dr. Harding was ill, Dr. Collins of St. John, a bright young and brave medical man, volunteered to come to the Island and do his best for his fellowmen. He toiled heroically till at last he was stricken with the fever and he died from it heroically "laying down his life for his friend." A monument is erected to him in a quiet little grove of firs on Partridge Island, but without any mark to his memory he should always live in the hearts of the people of St. John, especially in the hearts of the medical fraternity.

Another big epidemic which visited St. John, was the Asiatic Cholera in 1854, which taxed the capacity of the Quarantine Station, as scores of infected were shipped from the city to the Island. The mortality was very large, but the chances of better care were more favourable than in the typhus epidemic of 1847.

No epidemics of so grave a character have visited us since. Under proper medical vigilance and inspection and improved sanitary methods inall parts of the civilized world, these great blighting and blasting scourges are dying out. Yet in the East the plague still lingers, and occasionally a case is imported to our shores, but like cholera it is chiefly confined to the unsanitary centres, which I am pleased to say are becoming sanitary under christian civilization and influences.

The yellow fever still lingers in West Indian and South American Ports, but is fast being brought under control, and as a general thing these late years have only seen it in sporadic cases.

Still at the present day some of the most fatal and malignant diseases prevail, and even in the epidemic form break out occasionally. It may surprise some of us, I know it did me, that the Bubonic Plague, after lying quiescent for a period of two hundred years, broke out in Bombay in 1896. Few thought it possible that it would become epidemic, and thought that it would be promptly stamped out, but when the deaths began to mount up to thousands the inhabitants began to fly panic stricken from the city. It is estimated that half the population deserted. The population being approximately 1,000,000. This fact proves that the plague has lost none of its old-time terrors, and recalls the condition of affairs described in the early history of the disease. In 1896, 20,000 deaths occurred in India. It advanced steadily and up to 1904 when it died out the total number of deaths officially recorded was 3,150,000, proving the most fatal of any recorded epidemic.

Last year the disease was reported in Glasgow, Seattle and San Francisco, but did not become epidemic. This goes to show that it might even today get a hold in densely populated cities of Europe and America. Extra precautions were asked for by the Inspector General of Public Health last year, to be taken in the inspection of vessels from the ports of Glasgow, Seattle and San Francisco. The Quarantine Officers have also to be on the alert for yellow fever from West Indian and South American ports, yet owing to climatic conditions yellow fever generally dies out before it comes very far north, only one vessel as far as I can learn entering a Canadian port with it. That vessel was the "Burnam Wood," Captain Swattridge, which arrived here in the summer of 1902 with the whole crew ill with it, with the exception of the second mate and steward. Four of the seamen died on the voyage up from Rio Janerio. The captain and second mate were quarantined and

treated at the Epidemic Hospital on Partridge Island, and recovered.

Small-pox, another of the quarantinable diseases, is a disease which we have to be continually on the watch for. This last winter it has been prevalent in Nova Scotia, but under Section 8 of the Dominion Quarantine Regulations, vessels direct from a Canadian port are not subject to these regulations, they are coastwise and come under the control of the local Boards of Health.

The prevailing minor quarantinable diseases are measles, chicken-pox, scarlet fever, diphtheria and typhoid fever. This last winter has been almost free from these diseases, but as a general thing boats arriving from Antwerp carry some of them.

One of the most annoying things a quarantine officer has to contend with is the objection to vaccination. Very many will not let the ship's doctor vaccinate them on the passage, and the tug of war comes when the quarantine officer boards the ship. The law distinctly says that no person shall land in Canada without positive proof of vaccination or of having had small-pox, or a detention of eighteen days under observation. Some prefer to be detained and stay the prescribed time. The ship's surgeon has nothing to say in the matter at the time of embarkation. If the S. S. Company refused to book any person who had not been vaccinated, or who refused, and turned them down at that time, it would be pleasanter for the quarantine officer and less expensive to the steamship company, as the company has to pay for food provided, and furnish a steward and all extra help deemed necessary by the quarantine officer.

As to the present equipment of our Station I may say that we have four large detention buildings, which will accommodate 1,500 people, heated by hot water, a radiator in every room, well lighted with acetyline gas.

We have two hospitals, one for the treatment of the minor quarantinable diseases, which include scarlet fever, diphtheria, measles, typhoid fever and chicken-pox; the other for the graver quarantinable diseases, including typhus, small-pox, cholera, yellow fever and bubonic plague.

All our buildings are liberally equipped with lavatories, baths and water closets.

From 1903 till the present time 1,287 have been quarantined under observation, 429 have been admitted to the hospital for treatment. The diseases were small-pox, scarlet fever, diphtheria, measles, chicken-pox and typhoid. Deaths occurred from small-pox, diphtheria, scarlet fever, typhoid and measles.

Our hospital for the minor quarantinable diseases has four wards, containing ten beds each.

Our hospital for the graver quarantinable diseases will accommodate 20 patients.

In conclusion I may add that the main work and duty of a quarantine officer is, to detect, detain, isolate and treat patients coming into port with infectious diseases. This sometimes places grave responsibilities on the Port Physician. Large financial losses may occur by an ocean steamship losing one tide and in many cases one hour, as by losing one hour at certain times of tide, makes it impossible to dock large ships. Some of these ships carry a crew of from 25 0to 300, and may have on board 2,000 passengers. But the health of our people ranks first. The financial side of the question, of corporation or company, second, and in cases of doubtful diagnosis the quarantine law authorizes the holding of the ship for decisive diagnosis.

SOME RECENT GYNÆCOLOGICAL OPERATIONS

By E. D. FARRELL, M. D., C. M.
Halifax, N. S.

(Read before the Halifax Branch of the British Medical Association.)

WHEN naming the title of the somewhat disjointed notes I propose giving you to-night, I had in view a description of the gynæcological work in the Wertheim Klinik in Vienna. Gynæcology presents such a wide field and has so many exponents that it is almost an impossibility to endeavour to make anything like a concise review of the recent operations as they are so prevalent and each operator of prominence makes some modification. However, the number of new operations is not nearly so large as the modifications. I propose to-night merely to describe some of the operations done by Professor Wertheim at his klinik, and also to mention a few operations which have recently come under my notice in the journals, especially along the lines of shortening of the round ligaments.

I think all over Europe the Gynæcologists are in favour of the vaginal route wherever possible and one is amazed at the dexterity with which the work is accomplished; especially striking is it to the surgeon who had previously in almost all cases attacked disease in the female pelvis by opening the abdomen.

Wertheim, who is a Jew about forty-six years of age, is in charge of the Kaiserin Elizabeth Spital or Rothschilds Spital, given by Baron Rothschild of Vienna, as a memorial to his late wife, and called after the late Empress of Austria. It is supported by private enterprise, all the beds are free, and is devoted exclusively to gynæcological work. It contains about one hundred beds divided into wards of from three to six per room and is absolutely controlled by Prof. Wertheim and his assistants. Dr. Wyball his first assistant, does the bulk of the surgical work, as the Professor is much occupied at his private sanitarium; however, he is every day at the hospital and superintends most of the work, and on certain days operates himself. The work at the Klinik is almost altogether done by the vaginal route. Many operations are the rule, and the assistants are at work from 8 a.m. on until late afternoon.

Taking first the various repair operations about the perineum and operations for cystocele and rectocele; these differ very little from the methods employed the world over. One is just as apt to see Lawson Tait's operation for repair as any other. One point I admired very much and considered of great value was the use of the ligature in outlining the field of operation. Take for instance, an operation of repair of the perineum, a long silk ligature was inserted at four points and held taught by an assistant, or in the absence of an assistant was carried to and inserted in the skin well beyond the field of operation. The silk ligature is almost universally used and acts splendidly for this purpose. I noticed in the Pfannenstiel or transverse incision for opening the abdomen the apex of the flap was turned up and united to the skin above and thus out of the operator's way, and this is very useful when the number of assistants is limited.

The method of opening into the peritoneum per the vagina is by mak-

ing a transverse incision above the anterior lip of the cervix uteri, pushing up with the finger the bladder and incising the peritoneum which is easily discernible by its fold of attachment. When one desires to get behind the uterus a transverse incision behind the posterior lip can be done and is often necessary where adhesions exist. In cases of marked prolapse of the uterus a longitudinal incision is made, the uterus being held in position of prolapse by an assistant.

To illustrate what can be done by the vaginal route, the first two operations I saw in the klinik were a large fibroid and a large multilocular ovarian cyst, the former was removed piece by piece and quite rapidly, the latter was punctured after the usual incision over the anterior lip and was emptied compartment after compartment, but when an attempt was made to draw the collapsed cyst down through the opening it was found to be adherent; an opening was made posteriorly and a strand of intestine freed from the cyst wall, and it then came away quite easily, was tied aff and the pedicle returned into the abdomen. I mention these two cases as I felt as I watched that both would have been more easily handled by the abdominal route, but when I saw the ease and rapidity with which the difficulties were overcome I was uncertain.

In reference to the rules for the vaginal puncture of an ovarian cyst.

First,—The cyst must be free, that is, on palpation it must be freely moveable from side to side and up and down.

Second, every fixed or uncertain ovarian cyst do a laporatomy.

Third,—If cyst is malignant do a laporatomy.

Wertheim's operation for shortening the round ligaments is as follows: The usual incision above the anterior lip opening peritoneum, catching the fundus of the uterus with a forceps taking hold of the round ligament on either side drawing on them till the uterus is in good position, then folding the redundant portion of the ligament on either side with ligature and carrying a ligature through the cut surface of the vaginal wall and folded ligament, uniting them together, the same on the opposite side and uniting the opening in the vaginal wall.

Vaginal fixation is done in women past the child bearing stage, and consists in stitching the uterus to the anterior vaginal wall.

For prolapse Wertheim never does a hysterectomy, he makes an longitudinal incision along the prolapsed uterus, opens the peritoneum through this incision, resects a large portion of the uterus and then carries the fundus forward and places it in front of the bladder and fixes the uterus to the anterior vaginal wall with ligatures. This he calls interposition of the uterus and claims, and I think quite reasonably, that he saves the uterus and makes it a support for the bladder; that he brings the uterus which was before in retro-flexion, into maximum anteversion and by preventing the uterus from going back into retro-flexion he prevents a new prolapse.

In some cases of prolapse you have only rectocele and therefore the uterus is in anti-flexion. In such cases the uterus must go between the rectum and the vagina.

Wertheim also does his operation of interposition for incontinence of urine. He fixes the uterus high on the vaginal wall under the symphysis pubis in front of the bladder and

thus gets pressure on the urethra. This causes retention at first which is followed by development of the muscular wall of the bladder which becomes much strengthened and by using the catheter for six or eight weeks after the operation till the bladder has recovered sufficient tone, he has obtained excellent results. I might here mention, that in most of the operations about the vagina he has the rectum emptied by the enema and packed with gauze and then makes a purse string suture about the anus.

I now come to his celebrated operation for cancer of the uterus, and before describing the operation would give those who are not familiar with it, his method of selection of these cases for operation, a method which has enabled him to publish the best statistics of any operator for cancer of the uterus.

Take a hundred cases in the Wertheim klinik. Forty per cent. are positively inoperable, ten per cent. are practically inoperable, meaning merely exploratory incision. This leaves fifty per cent. to deal with. After his radical operation thirty per cent. after five years have no recurrence. Fifteen per cent. have recurrence, five per cent. die of other causes. These figures are taken from my notes in Dr. Wyball's class. The operation is done by the abdominal route under either general or spinal anæsthesia; for the latter, tropococaine or stovaine with adrenalin is used. The operation is divided into two stages, first the preparation of the cervix, it is cleansed and cauterized thoroughly, usually before the anæsthetic is administered. The patient complains very little of the burning, however, I think it could be done as well under an anæsthetic. The abdomen is then opened and the first points examined are the glands, lumbar illiac and inguinal, their condition is the index of the result and the indication for further procedure. The first step is preparing the bladder. Second, tying the vessels in the round ligament. Third, finding the ureter in the folds of the broad ligament and preparing it as follows: Take the index finger and get uterine vessels on finger and ureter underneath, tie the uterine vessels and complete the preparing of the ureter and bladder. Fourth, dissect the peritoneum from the rectum and push away from vagina, the uterus is now free except the parametrium, gradually work with the finger till you have the tissue freed a good inch or even two below the cervix, then apply the clamps and excise with scissors. The next step is the hunting for and removal of all glands as before mentioned. Then uniting parts and abdominal wall.

Dr. R. C. Coffey of Portland, Oregon, in the October number of *Surgery Gynecology and Obstetrics*, publishes a very exhaustive article on the principles on which the success of the surgical treatment of retro-displacements depends. He has had a very wide experience in the Ventro-suspension operation of Kelly, and also has performed the Alexander operation over two hundred times. He criticises Kelly's operation as it has produced in many cases dystocia and does not always relieve the back ache and nervousness. He deals very exhaustively with the embroyology of the pelvic organs and claims that the peritonium of the broad ligament is the true mesometrium just as the peritoneum is the mescolon and the mesentry of the small intestine. He says, "it seems to me that round ligament has been a stumbling block of our gynecologists. It looks like a ligament and is placed where a ligament

ought to be to hold the uterus, but its structure is not that of a ligament. Sobatta regards all of the so-called true ligaments of the uterus as a continuation of its musculature and an examination of the round ligament shows that in the vicinity of the uterus where it is thickest, it is composed solely of nonstriated muscular fibres and connective tissue. W[illegible] the inguinal canal it receives some striated muscle fibres from the internal oblique and transversalis which frequently pass almost to the uterus. There is not a single thing in the structure of the round ligament which could lead us to believe that its function is that of continuous holding, for nowhere in the animal organism is a muscle called upon to do constant duty; moreover it is absolutely opposed to the known physiology of a muscular fibre. That the so-called ligaments of the uterus at times move the uterus to suit the position and conditions of the body, there can be no doubt, which fact taken into consideration with the histological structure of the round ligament leaves but little doubt that the round ligament is absolutely essential, not as a ligament, but as an active agent to poise the uterus across the pelvic outlet on its true ligament, the broad ligament or mesometrium, which is inserted just below its middle. The broad ligament may be said to have an anterior and posterior fold. Underneath and parallel to the anterior fold the round ligament is located in the connective tissue. If, for any reason, the anterior fold of the broad ligament becomes too long, the tendency of the uterus is to sag backwards and downwards, putting the muscular fibres of the round ligament into constant action in trying to replace it and, as is always the case with a muscular fibre, it finally tires out and is unable to properly poise the uterus. On the other hand, if, by injury, one or both of the round ligaments are destroyed or crippled, the uterus has nothing to poise it, to meet the conditions and positions of the body; consequently the uterus lies as a dead weight and soon stretches the connective tissue and drags down the broad ligament. It is well at this point to note that the round ligament is a separate structure from the peritoneum, and works independently. We are of the opinion that the anterior fold of the broad ligament is the proper ligament to shorten and shall attempt to prove that all successful operations have utilized the peritoneum of the anterior fold of the broad ligament as the principal agent and that the round ligament should under no circumstances be permanently fixed as it is neither a vestigial organ nor a ligament, but is an elastic muscle with a duty to perform and therefore should not be permanently crippled, for if the dead weight is taken away by shortening the broad ligament, the muscular fibres regain their tone by rest and again become useful as is exemplified in orthopedic surgery."

His operation consists in stitching the round ligament and a fold of the broad ligament to the side of the uterus as the accompanying plates will demonstrate. Certainly after reading his article the arguments he advances are so reasonable that one is tempted to believe that his procedure is probably the best, and it obviates so many of the criticisms of the various other operations, in fact, his theory is the one that is gaining most ground, the later operators taking in something of the broad ligaments as well as shortening the round ligament. In the same number of this journal there is an article by Alexander, advocating very strongly his

own operation and advancing what seem at first sight very strong arguments, and criticising the ventral suspension of Kelly. Prof. Ochsner of Chicago, in the January number of this journal, advocates the doing of a temporary ventro suspension of the uterus in practically every case of extensive pelvic infection in which a radical operation was performed, that is, with large pelvic abscesses, cases of pyosalpinx or ovarian abscesses. In all these conditions where there is a tendency for the uterus to assume after the operation a retro-position, he advises doing a temporary operation which he describes as follows:

The laparotomy incision is made so that at the lower angle the skin incision is distinctly the longest, then the fascia and muscle, and finally, the peritoneal wound being the shortest. After the intra abdominal work is completed, a needle armed with a double strand of ten-day catgut is introduced through the left rectus fascia about half an inch below the lower angle of the fascia incision, then through the left rectus, and finally through the peritoneum about an inch below the lower angle of the peritoneal incision. It is now passed through the uterus about an inch behind the apex of the uterus, taking a good bite and being careful not to abrade the peritoneal covering of the organ. The needle is now passed out of the right side in reverse order to its introduction on the left, and the stitch is tied just tight enough to bring the uterus in contact with the inner surface of the peritoneum, but not tightly enough to cause destruction of the peritoneum from pressure. The sigmoid is now carefully placed behind the uterus, and the omentum spread over this, covering all of the raw surfaces, which it may have been impossible to cover with peritoneum. The wound is now closed in the ordinary manner.

The most important point in the operation is to get the unabraded uterus in contact with the unabraded parietal peritoneum, there being only two needle punctures in each where the continuity of the peritonium on one side and the peritoneal covering of the uterus on the other is interrupted.

Prof. G. Cragin, in the New York *Medical Record* considers the relative merits of ventro-fixation and ventro-suspension and goes on to show that in many cases the former is converted into the latter.

Noble says, that it has been recognized that a firm fixation of the uterine fundus to the anterior abdominal wall is followed, in a certain number of patients who subsequently become pregnant, by a dystocia perhaps so marked as absolutely to indicate Cæsarean section.

I cannot close these notes without referring to a recent development of Gynæcological work undertaken by Dr. Thos. S. Cullen, of Johns Hopkins Hospital, Baltimore. He reports a number of cases where on opening the abdomen he found it necessary to remove either adhesions of large growths from the liver or to remove portions of the liver substance. He felt that the gynæcologist should be prepared to do any variety of abdominal surgery, and began investigating the surgery of the liver. He found that this work has previously been undertaken by a Russian, and he had invented the blunt needles for work of this kind, and he himself has somewhat improved upon these needles. I am indebted to him for a pair of them, and he says his experience has been that the puncture of the liver with the blunt needle is almost devoid

of haemorrhage. This is explained by the fact that the blunt instrument shoves the vessels to one side or the other, and does not pierce them. Dr. Cullen finds Kronig's Light most useful in the operating room. He considers it a decided advance in expediting the work of the surgeon. In the room adjoining the operating room is the Search Light, with a reflecting lens made by Zeiss. This light shows through the transom, and strikes a mirror at such an angle that it is reflected directly into the wound, giving a light as bright as day.

I have endeavoured to give you a resumé of some of the more recent operations, but as I said at the beginning, there are so many modifications, that it is impossible to follow them. Whilst in Vienna last winter, I became interested in the discussion going on regarding the advisability of the repair-operations on the round ligaments, this matter was taken up in a Regional Anatomy Class, given us by Prof. Tandler, Professor of Anatomy, in the University of Vienna. He argues very much along the lines of Dr. Coffey, and he claimed that no matter how much you shorten the round ligaments, that in fifty per cent. of cases it is useless, as the unstriped muscular tissue increases and further that the round ligaments are not organs that act as suspenders to the uterus, but rather poise it. I have personally had experience of fifteen cases of the Suspension Uteri operation of Kelly, and have found that in quite a number of cases the retro position had recurred, also that in certain cases, there has been a dragging sensation and pains in the abdomen, also in two of the cases where pregnancy occurred both births were somewhat premature, and the pregnancy was complicated with a lot of dragging pains. I recently did the shortening operation of Wertheim which I have described to you. It is probably the best with the exception of that of Dr. Coffey. It may possibly have an influence in drawing up and forward the Anterior Fold of the broad ligament, and its good results may depend on this.

CASE REPORT.

By L. R. MORSE, M. D.,
Lawrenceton, Annapolis Co., N. S

THE following case was very interesting, and if I am correct in classifying it as Landry's Paralysis, is of sufficient rarity to warrant a report. The writer had never seen a similar condition in twelve years country practice, nor in the hospital during medical course, or in any visits since.

The patient, a female, age 48, was poorly equipped mentally and her statements were very unreliable. She was at the climateric and had had no menstruation for six months. She believed and reported in the neighbourhood that she was pregnant by a respectable farmer, which was not correct. On the first visit I found her in bed moaning and crying "O doctor, I'm awful sick, my hands and feet are like billets of wood." She kept repeating it over all the time I was there. There was a history of exposure, having stood for a long time thinly clothed in the cold at her husband's funeral eight days before. The place she was in was so cramped and the bed so dirty ,that I was unable to make a thorough examination, but found pulse 120, temperature 103°, and she was suffering from pains and numbness in feet and ankles.

Nov. 12th.—I saw her again three days after. She had developed a dry hacking cough with no expectoration. The bowels were constipated. She had taken two (2) comp. cathartic pills (4) twice a day for several days with no effect, but had free movements after a single 10 gr. dose of calomel. There was no control over the bladder and she passed urine involuntarily in bedclothes. It was not due to the incontinence of retention, for bladder could not be felt through the abdominal wall over pubes. For several days she had complained of pain in abdomen, and there was considerable tympanites which with the high pulse and fever suggested a peritonitis until the movement of the bowels, when pains in abdomen and tympanites ceased.

Nov. 21st.—Continued complaining of numbness and tingling in hands feet. I could not ascertain which she had complained of first, hands or feet, as far as I could learn both were affected at same time, and the paralysis in hands and feet about equal on the first visit. On the 12th day of illness she could sit up, after being lifted out of bed into a chair, but the muscles of head and neck seemed weak, and she asked for someone to hold her head up. The patellar and plantar reflexes were abolished and the feet were dropped with no power of flexion or extension at ankle joints.

Nov. 22nd.—She had more cough with little expectoration, but would occasionally raise some mucus the attendants said. Examination of the chest was negative, except a few scattered rales. She continued to have no use of hands and feet. The sensibility of legs and forearms was unimpaired, but a hard pinch was complained of. Flexion and extension of feet not possible, but she had slight power of flexion in knee joint, which caused pain in muscles of the calf. The left hand and arm had slightly more power than the right, for after a while she could slowly reach her mouth with her left hand, but was powerless to feed herself. The paralysis was in muscles of hand and

forearm, but there was enough strength in shoulder and arm to raise the arm to head, with difficulty. The mind was clear and voice strong all through the illness. The pulse ranged from 120 to 130 from the first; the temperature, from 97°F. to 100°F., and respiration from 25 up to 40, when respiratory apparatus became involved.

Nov. 27th.—The last day of illness I found her propped up in bed, gasping for breath and she had the appearance of one in the last stages of pneumonia. Examination of chest shewed a large number of rales, no dulness nor blowing breathing. Heart's action rapid and labored, no murmurs.

The abdominal wall was motionless and diaphragm apparently paralysed.

Pulse was 140, respiration 40, temperature at normal. She was still coughing, but could not raise anything. There was now great difficulty in swallowing even liquids. Urine was passed involuntarily and bowels constipated. The mind was still clear and voice strong. There was now a total paralysis of muscles in legs, arms and trunk with a final involvement of diaphragm and respiratory muscles. She died suddenly struggling for breath.

The sensibility to heat and cold was not tested, nor electrical reaction for degeneration in the muscles tried. Sensibility was impaired, but was present all over the body. There was no wasting of the muscles that I could notice.

Diagnosis.—In the diagnosis of this case there were several confusing factors to consider, but they would give no trouble under different circumstances.

1.—*Malingering*: She was rather a hard character and her poor mental equipment made her statements very unreliable. It was difficult at first for me to determine how much of the paralysis and pains were real, but continued high pulse, etc., and close watching soon shewed real trouble was present somewhere.

2.—*Rheumatism*: There was some puffing about ankles at first. The pain on movement of ankles with slight fever and quickened pulse might have led me to consider rheumatism, but there was no joint affection and no endocarditis and this soon cleared up.

3.—*Peritonitis*: During a few days the bowels did not move there was tympanites and tenderness over bellywall, and complaints of pain all over abdomen. The high pulse and fever suggested peritonitis with above symptoms, but these subsided after the calomel purge.

4.—After these apparent difficulties cleared up the real question was between a multiple neuritis and Landry's paralysis.

The paralysis beginning simultaneously in hands and feet seemed against Landry's disease which we are usually taught is an ascending paralysis beginning in the feet and gradually involving trunk muscles, etc.

Osler says: "Landry's paralysis is an advancing paralysis beginning in the legs, rapidly extending to the trunk and arms, and finally in many cases, involving the muscles of respiration. It presents a remarkable similarity to certain cases of polyneuritis with which it is now grouped by many writers."

Under multiple neuritis he gives a clinical picture which fits my case with exception that the range of fever here, was nearly over 100°F. and concludes by saying that "it is not to be

distinguished in many cases from Landry's paralysis; in others from subacute myelitis of Duchenne. James Ross concludes from analysis of all reputed cases of former disease that it coincides with multiple neuritis in general etiology, symptoms and course. On the other hand, Hare in a very thorough study of a recent case of Landry's paralysis, concludes it is a separate and distinctive disease.'

In Allbutt's system, Judson Bury classifies Landry's paralysis under multiple symmetrical neuritis as the motor paralytic variety.

The paralysis of arms and legs, setting in simultaneously was against a diagnosis of myelitis. The sensibility of arms and legs, although impaired, was not lost as in myelitis. The involvement of the bladder and rectum was due probably to weakness of expulsive efforts from paralysis of abdominal muscles.

Considering the difference of opinion it would seem that there should be a better classification and a more definite knowledge of the disease as to clinical symptoms and pathological lesions. "It has served as a convenient clinical name for a number of cases of rapidly progressive generalized paralysis in which the diagnosis during life was uncertain." If the patient died he had Landry's paralysis or if recovery took place a multiple neuritis. The term "ascending" in the anatomical sense implied by some writers does not seem correct as Landry used it in the sense of "centripetal" to indicate that the paralysis first attacked the distal segments, and finally invaded the muscles of the trunk. Sometimes the arms are attacked before the legs; sometimes they are attacked simultaneously.'

CRANIOTOMY.

By G. G. CORBET, M. D., St. John, N. B.

(Read before N. B. Medical Society at St. Stephens, N. B., July, 22nd, 1908.)

FROM time immemorial, the physician has been held in greater esteem, than the members of any other profession. Even by the barbarous tribes, he is looked upon as a connecting link between the visible and invisible world.

But in these latter days as in the past, it has been quite common, for some members of our profession to prostitute our noble calling to lower purposes; no one can find fault with a physician for making his profession a means of earning an honest livelihood, and a decent competency.

To-day I wish to introduce my subject "Can a physician sacrifice the life of a child, being born into this world, to save the life of the mother?" We will discuss it from a Catholic, Protestant, and Medical standpoint, and see if we can find firm footing anywhere.

THE CATHOLIC VIEW: — (Moral Principles and Medical Practice, by the Rev. Chas. Coppens, S: J:) "He distinguishes human acts; *i.e.*, that a man is not to be held responsible for all his acts, but only for those which he does of his own free will, which therefore, it is in his power to do, or not to do. And that many human acts may be criminal of which, however, human laws and courts take no notice whatsoever. Also a higher law, which all men are bound to obey a law from which no man or class of men can claim exemption, a law, which the Creator cannot fail to impose upon His rational creatures. All things are created for man, man is created directly for God, and is not to be sacrificed for the advantage of a fellow man. Thus reason and Revelation in unison proclaim that we can use brute animals as well as plants for our benefit, taking away their lives when it is necessary or useful to do so for our own wellfare, while no man is ever allowed to slay his fellow man, for his own use or benefit. "At the hand of every man will I require the life of man." Brute animals are for the use of man, for his food and clothing, his mental and physical improvement, and even his reasonable recreation. When a brute animal has served man's purpose it has reached its destiny.

It is entirely different with man, every man is created directly for the honour and service of no other men, but of God Himself, by serving God man must work out his own destiny, eternal happiness. In this respect all men are equal, having the same essence, or nature, and the same destiny. But are there no exceptions to the general law "Thou shalt not kill?" There are three cases of this nature namely, (1) for self-defense; (2), capital punishment; (3), and active warfare. In self-defense it is justifiable to repel violence with violence, even if the death of our unjust assailent shoult result. In such a case a ruffian attempts to take away my life. I have a right to my life. I may therefore protect it against him, and for that purpose I may use all lawful means. Suppose I have no other means to protect my life than by shooting my aggressor, has he a right to complain of my conduct if I try to do so? No, because he forces me to act, he forces me to choose between my life and his, but is not God's right violated? It is, for God has a right to my life, and that of my assailant, The ruffian who compels me to shoot him, he is to blame, for bringing both our lives into danger, he is

responsible for it to God, and the Creator will not blame me for defending my life by the only means in my power. Now the only case in which the need of medical treatment against unjust aggression is the case of a mother with child. Is the child under these circumstances really an unjust aggressor. Can a physician ever be justified in destroying the life of a child, before or during its birth, by craniotomy or in any other manner, in order to save its mother's life, on the plea that the child is an unjust assailant on the life of the mother. Here is the mother in the pangs of parturition, an organic defect, no matter in what shape or form prevents deliverance by the ordinary channels, all that medical skill can do to assist nature, has been done, the case is desperate, other physicians have been called in, in consultation, as the civil law requires, before it will tolerate extreme measures. All agree that if no surgical operation is performed, both mother and child must die.

There are the Cæsarian Section, the Porro operation, laparotomy, symphysiotomy, all proved by science, and the moral law. But we will suppose an extreme case, namely, the circumstances so unfavourable for any of these operations, whether owing to want of skill in the doctors present, or for any other reason that none can safely be attempted, any of them would be fatal to the mother. *In this extreme case of necessity can a doctor break the cranium of a living child or in any way destroy its life, with a view to save that of the mother?* If three consulting physicians agree that this is the only way to save her, he will not be molested by the law courts, for performing this murderous operation. But will the law of nature and of nature's God approve or allow this conduct. This is the precise question under consideration; we have seen that the infant, a true human being, has a right to live as well as the mother. All men are created equal, and have an equal right to life. The Creator too, as reason teaches, has a clear right to the child's life. God is supreme and the only master of life and death, and he has laid down the strict prohibition "Thou shalt not kill." Now comes the plea of self-defence against the unjust aggressor. If the child is such, if it unjustly attacks the mother's life, then she can destroy it to save herself, and her physician can aid the innocent, against the guilty party. But can it be proved that the infant is an unjust aggressor in the case. There can be no intentional or formal guilt, in a little innocent babe. But can we argue that the actual situation of the child, is an unjust act, unconsciously done, yet materially unjust, unlawful —thus if a mad man would rush at me with a sharp sword, evidently intent on killing me, he may be called an unjust aggressor, though being a raving maniac, he does not know what crime he is committing, and is formally innocent of murderous intent. Materially considered the act is unjust, and I can defend myself lawfully, as against any other unjust assailant.

But can the innocent babe be classed in the same category with the raving maniac? Why should it? It is doing nothing, it is merely passive, in the whole process of parturition. Will anyone object that the infant has no right to be there at all? Who put it there? The only human agents in the matter were the parents. The mother is more accountable for the unfortunate situation than the child. *Certainly you could not, to save the child directly kill the mother, treating her as an unjust assailant of the child's life? Still less can you treat*

the infant as an unjust assailant of its mother's life. The plea of self-defence against unjust agression being thus ruled out of court in all such cases, and no other plea remaining, for the craniotomist, we have established, on the clearest principles of ethics and jurisprudence, *that it is never allowed directly to kill a child as a means to save its mother's life.*

Protestant View:

St. David's Church,
St. John, N. B.,
July 14th, 1908.

Dear Dr. Corbet,—

I enclose a few paragraphs on the question concerning which we were speaking a few days ago, and I trust they may be of some service to you in the preparation of your paper.

your sincere friend,
Angus A. Graham.

Dr. G. G. Corbet,
St. John, N. B.

It seems to me to be more a scientific question than a moral one. Pregnancy is a purely natural condition, and is therefore governed by natural laws, and treated according to scientific principles. When pregnancy completes its term there is a separation of the fœtus from the mother. If this separation be physically impossible we look to science to say what must be done, just as we look to science to act according to its best judgment whenever *any other natural* process is interrupted.

The patient is the mother, and the aim of all treatment is to assist her to complete the natural process through which she is passing. If this purpose is attained her own life is saved as well as that of the child. But if this is impossible, and a choice has to be made, the life of the mother must be saved. No law human or divine compels us under these circumstances to sacrifice the patient.

When the course of pregnancy is complete it may be found that it is physically impossible for the mother to give birth to the child. Must she die because nature has made it impossible for her to discharge the full functions of motherhood? In a case like this we expect science to step in and save her, and we expect science to go farther and make it impossible for her to become pregnant again.

In the lower-animal world the mother's life is saved if a choice has to be made. The first aim of the veterinary surgeon is to save the mare or the cow. Are we to be less careful to save the human mother?

In our theological interpretation of the facts of human history to-day we do not place the responsibility for human sin upon the woman, and we do not regard child-bearing as a penalty for the fall. The so-called fall was a fall upwards, the dawning of the moral consciousness in the race, the recognition of the distinction between right and wrong. The code of morals which teaches the mother to sacrifice herself if a choice has to be made is a survival of the old view which laid on woman the curse of child-bearing as the penalty for her part in the first sin.

In summarizing the two views we find that one is from a purely moral standpoint and one makes it a scientific question.

We see that the Roman Catholic Church teaches

1.—That man is responsible only for acts done of his own free will, which acts are in his power to do or not to do.

2.—"Thou shall not kill."

3.—That it is justifiable to defend yourself against an unjust aggressor.

4.—That a child in its mother's womb is not an unjust aggressor.

5.—It is wrong to kill the mother to save the child; it is also wrong to kill the child to save the mother.

The other view, i.e., Protestant View:

1.—That it is more of a scientific question than a moral one.

2.—Pregnancy is a natural condition and is governed by natural laws, and treated on scientific principles.

3.—If impossible to deliver on account of some physical defect then use best scientific means.

4.—The patient is the mother, and physician has to assist her.

5.—If a choice has to be made, then the life of mother is to be saved.

6.—Expect science to make it impossible for the mother to become pregnant again.

7.—The so-called fall was a fall upwards.

8.—The code of morals which teaches the mother to sacrifice herself if a choice has to be made is a survival of the old view which laid on woman the curse of child-bearing as the penalty for her part in the first sin.

So Ladies and Gentlemen, you see that this is a broad question, which many honest, honourable persons can differ about; it depends whether you look at the question from a moral or a scientific standpoint. As physicians, we will have to look at this question from both sides *i.e.*, the moral and the scientific.

If it is wrong to kill the mother to save the child, and it is also wrong to kill the child to save the mother, what shall the obstetrician do? He is placed in an awkward position, he can do nothing, but drift, and let both mother and child die. Is that all the obstetrician can do? If that is all, then the patient is better off without a physician. Yes! he can advise Cæsarian section, but will the patient accept this operation, and are the conditions favourable for it? We have symphysiotomy, but this has justly fallen into disuse.

Nine years ago I was placed in this awkward position. I was called to attend a patient in confinement. She lived in the country, thirty miles from a city. When I arrived, the membranes had previously ruptured, the child's head was lying against the perineum and the pains very strong, but not frequent. I waited 24 hours when I advised consultation. When my consultant arrived he advised waiting; we did so, and 48 hours from time labour set in we agreed to try to deliver as best we could, forceps had previously been used. During the 48 hours you could touch the head almost with the palms of your hands. Our patient being anæsthetized, I tried again to deliver by forceps, but failed; then I performed a syphysiotomy, (which by the way is quite easy, and our patient made a splendid recovery) and gained about one inch and applied the forceps again, but failed to deliver. Then I performed a craniotomy and delivered the fœtus, which was very much overgrown, my patient had gone 1½ months over her expected time, Her following pregnancies were normal. My patient had no physical defect, but the child's shoulders were very large. This was not a suitable case for Cæsarean section on account of the condition of her surroundings.

In very few cases is it a choice of saving either one, but usually a case of losing both, for what endangers the mother endangers the child;

therefore which shall we save? Mother or Child?

The obstetrician should place the exact condition of affairs before the mother and father and let them decide. If they are good Catholics they will decide on Cæsarian section under all conditions, whether favourable or not; if they are Protestants they will select Cæsarian section only provided that the conditions are favourable for the mother's recovery; if not, then they will select craniotomy. So this is not a question for the attending obstetrician to decide. He can only advise, and he should be governed entirely by the wishes of his patient. The patients having made their choice it is then for the obstetrician to do all that science can for the safety of the mother and child.

Before closing, I would like to ask one question. In a case of a *pregnant woman*, Is the mother and child, two separate, distinct persons, or are they one? If separate and distinct persons why are they classed as one. If the two are one how can they be two living beings. This opens up the question: Has not the mother the right to say what shall be done and does not this right exist up to the time of delivery irrespective what the husband says?

PERSONALS.

DR. F. V. Woodbury, who had a severe attack of appendicitis last month which necessitated operation, has fully recovered after a trip to the western part of the province.

Dr. A. C. Hawkins, who had a short attack of typhoid fever, was able to resume work early this month.

Drs. M. J. Carney and W. A. Curry, of this city were recent graduates in medicine of McGill University.

The News extends its sympathy to Dr. J. W. Clarke, of Tatamagouche, in the death of his only son, aged ten years.

Dr. N. S. Fraser, of St. John's, Nfld., one of our editorial staff, was a recent visitor to Halifax.

THE MEDICAL ERA'S GASTRO-INTESTINAL EDITIONS.

During July and August the *Medical Era* of St. Louis, Mo., will issue its annual series of issues devoted to gastro-intestinal diseases. The July number will take up the usual bowel disorders of hot weather and the August will be devoted entirely to Typhoid fever. These issues always attract considerable attention. The editor will forward copies to physicians applying for same.

SOME POINTS IN THE ETIOLOGY OF PROGRESSIVE SPINAL MUSCULAR ATROPHY WITH ESPECIAL REFERENCE TO HEREDITY.

By D. A. CAMPBELL, M. D.
Halifax, N. S.

IT is now very generally recognized that heredity is an important factor in the causation of the progressive muscular atrophies of myopathic origin which are usually met with in early life.

On the other hand the influence of inheritance in progressive muscular atrophies of spinal origin, a disease incident to middle life, is either wholly denied or is looked upon with grave doubt. That this is the prevailing opinion a few brief quotations will show:

Gowers remarks: "Heredity is to be traced in only less than half the cases and generally as an indirect neuropathic disposition. Rarely is there direct inheritance of the disease. When many members of a family suffer from muscular atrophy the malady is nearly always myopathic and not spinal.

Osler says: "Hereditary and family influences, however, play but a small part in the etiology of this disease, and in this it is in contrast to progressive neural muscular atrophies and the dystrophies."

Mott observes: "In a considerable number of cases there is a neurapthic history; that is to say, there are other nervous diseases in the family. But you must not lay too much stress upon that, because if you go into the family history of most people nowadays you will find that a large number of them have a neuropathic history. In some cases there is a direct inheritance, that is to say several members of a family are affected, but that may be merely a coincidence. When you get muscular wasting in several members of a family it is nearly always a progressive idiopathic myopathy, not this form of disease."

The unanimity in opinion of the eminent authorities just quoted cannot be accepted as complete proof that heredity is an exclusive habit of the myopathies. Progressive muscular atrophy is most likely to be central in origin when it develops in persons over thirty-five years of age, and exhibits in its course the clinical features of th eso-called Aran-Duchenne type of the disease.

The occurrence of muscular atrophy in several members of the same family, under such circumstances as just mentioned, has been reported by many reliable observers, the most striking example being that of the Farr family, reported by Osler, in which thirteen members were affected in two generations, the majority being attacked above the age of forty.

I have notes of thirty-three cases occurring in four generations of the same famiy, conforming in the main to the Aran-Duchenne type of muscular atrophy, and all, with the exception of four, being above the age of forty when the disease began. In the investigation of these cases I have received valuable aid from a number of medical men, including Doctors Edwin Clay, H. P. Clay, Hon. D. McN.

Parker, A. J. Cowie, A. McD. Morton, and especially from Dr. R. H. Crawford, a member of the afflicted family. Notes of two recent cases, though brief, illustrate the chief clinical features.

Notes of The Case of J. W. C.

J. W. C., a stout, robust man, aged 45. Lately engaged in farming. Enjoyed excellent health throughout life. Always a hearty meat eater. Drank moderately, but used tobacco to excess. First noticed transient spells of weakness of the left leg below knee, which came on when ploughing. They soon passed away after resting. A month later leg became so weak that he could not walk well without the assistance of a cane. Three months after the onset of the malady, left leg very much weaker and considerably wasted. At this time noticed weakness and wasting of the small muscles of the right hand. Six months after the mischief began he was no longer able to leave his room. The left leg was very much wasted and practically useless. The muscles of the right arm were more or less wasted and useless. The right leg felt weak but was not much wasted. There was distinct evidence of trouble about the left hand. His mind was clear. There were no sensory changes. The deep reflexes could not be elicited. Fibrillary twitchings were absent.

He died of respiratory failure about a year after the onset of the disease.

There was general emaciation during the last stage of the disease, and pronounced atrophy of the muscles of the extremities, the change being not so pronounced in the right leg as in the other limbs. The wasting was concealed to some extent by œdematous swelling. There was no interference with the functions of speech and swallowing, and the muscles of the face escaped. The family tendency to this disease was well known to the patient, and this had a most depressing effect and no doubt hastened the progress of the disease. Two sisters, his mother, grandmother, and great-grandfather, died of the malady.

Notes of The Case of Mrs W. H.

To Dr. Angus McD. Morton, of Bedford, N. S., I am indebted for seeing this patient and also for a carefully written history of the case.

Mrs. W. H., age 45. Had always good health, though frequently subject to bouts of sick headache. Father died of apoplexy. Mother died of pulmonary tuberculosis. When in excellent health became conscious of weakness of the right hand, particularly of the thumb. It became gradually worse and wasting followed. She noticed that she could not grasp objects as well as usual, and the fine movements of the hand could no longer be performed. Five months after the onset of the malady the right arm was useless and greatly wasted. The left leg was very much weakened, and she found difficulty in going up stairs. General health good. Sensibility normal. Reflexes impaired. No fibrillary twitchings.

About ten months after the onset of the trouble she died somewhat unexpected while sitting in a chair. At the time of death the parts involved in the atrophic process were the right arm, the left leg and left arm. The right leg was spared. For some weeks before death there was considerable difficulty in swallowing and inability to cough or draw a deep breath. Death no doubt resulted from respiratory failure. The progoress of the affection was unusually rapid.

A first cousin of this patient, three aunts, her grandmother, and great-grand-father died of a progressive wasting palsy. Three of them came under my observation, and rather sad to relate all died somewhat suddenly while in a sitting posture.

The great-grand-parents of the two patients just described were brothers.

It is not necessary for my purpose to submit further clinical details, nor would time permit me to do so. I shall, therefore, indicate, in the briefest possible manner, the relationship of the cases chiefly by the aid of genealogical charts.

The founder of the Nova Scotian branch of the family, Robert M., came from Concord Massachusetts. His father died of wounds received at the first siege of Louisburg, when about 50 years of age. Robert M. died at about the age of 70, the cause of death being unknown, but some circumstances indicate that his last illness was a prolonged one. He had sixteen children in all. Two of his sons, Amos M. and David M., if tradition is trustworthy, died of progressive muscular atrophy.

Their descendants are indicated in the charts which I present.

Of the thirty-three cases indicated in the charts, two were in the first generation, eight in the second generation, sixteen in the third, and seven in the fourth.

With reference to sex, 14 were males and 19 females. This is unusual, as in large groups of reported cases males were considerably in excess of females, the proportion being about three to one. In the Farr family reported by Osler, the males numbered seven and the females six.

Of the thirty-three cases here noted, the average age at death was forty-five; the youngest was thirty and the oldest seventy-four.

CHART No. 1

DESCENDANTS OF AMOS M_____N

Those whose names appear in black faced type were afflicted with *Progressive Muscular Atrophy*. Total number of cases to date, June 1, 1909, 20, of which 7 were male and 13 female.

	Children	Grand Children	Great Grand Children
AMOS M. . . . N	DOROTHEA B. . . . N	CLARA B. . . . N	MRS. W. H. R
		MRS. A. J. . . . N	
		MRS. S. . . . N	S. J. . . . N
		MRS. M. J. . . . N	
	HARRIET M. . . . N	MRS. E. . . . H	
	JAMES M. . . .	No information.	
	NAOMI T. . . . N	JAMES T. . . . N	
		ANN T. . . .	
	AMOS M. . . . N	Family exempt.	
	ELISHAH M. . . . N	JAMES M. . . . N	JANE M. . . N
	EMILY B. . . . N	JOHN B. . . . N	
	HANNAH T. . . . N	MRS H. . . . T	
		JAMES T. . . . N	
	CAROLINE H. . . . K	Family exempt.	
	SARAH W. . . . T	WILLIAM W. . . T	
		WALTER W. . . . T	
	ISABELLA H. . . . K—Family exempt.		

CHART No. 2

DESCENDANTS OF DAVID M_____N

All suffered from *Progressive Muscular Atrophy*. Total number of cases to date, June 1, 1909, 13, of which 7 were male, and 6 female.

	Children	Grand Children	Great Grand Children
DAVID M. . . . N	MIRIAM W. . . .	EDW. M. . . . N	
	SUSAN H. . . . E	MARY C. . . . D	JAMES W. C. . . D
			MARY E. C. . . . D
			SUSAN C. . . . D
		DAVID H. . . .	
		WILLIAM H. . . .	
		JAMES H. . . .	– ISAAC H. . . N
	PHŒBE S. . . . H		

A CASE OF CHOREA DURING PREGNANCY.

By A. C. McLEOD, M. D.,
Caledonia, N. S.

THERE occurred recently in my practice at North Queens, a case of the severe form of chorea during pregnancy. As this is a rare disease, the total of all recorded cases numbering only a few hundred, it seemed to me worth while to send to the MARITIME MEDICAL NEWS, the following brief report:

The patient, a married woman, 28 years of age, had enjoyed fair health up to the time that this disease showed itself, which was during the fifth month of what was then her third pregnancy.

She was a woman of nervous, excitable disposition and before her marriage had suffered from mild attacks of chorea, having been obliged to give up school teaching on that account. She afterwards travelled in different parts of Europe and health was completely restored.

During first pregnancy she had slight attacks of chorea; required constant medical attendance after fifth month; and any attempt to work caused a return of choreic spasms. At full term she was delivered of a dead fœtus.

A second pregnancy soon followed during which she had good health with no return of chorea but had a miscarriage at the end of the seventh month. The child which lived but a few minutes was covered with a skin eruption which extended to the soles of feet and palms of hands.

Two months after this, patient became pregnant for the third time. Her health was now good up till the fifth month when the first symptoms of the attack to be described showed themselves.

During the third month of this pregnancy her mother-in-law, who was a near neighbour sustained a severe fracture of tibia and fibula. The excitement over this may have affected patient's nerves somewhat, also the fact that she had been living alone for some weeks.

Was first called to see her on February 26th. Found her sitting up, very nervous, signs of much weeping, but she was able to control herself while I was present so that scarcely any evidence of chorea was observable. She complained that she had not slept for the three nights previous and that her appetite had completely left her. I found that she had been receiving careful attention from her mother, who was a good nurse, and that she was being kept quiet in a room apart from all visitors and that general measures such as regulation of bowels, etc., had been attended to.

Prescribed tonics, also bromides and chloral.. On the 27th found that the bromides and chloral had given patient no rest during the preceding night, except that she would sleep for ten minutes occasionally and awake with more spasms than before; also stomach disordered and vomiting. On the night of the 27th ¼ gr. morphine by mouth once repeated gave several naps of one hour's duration.

FEB. 28th.—Since stomach seemed disordered, tried bromides and chloral per rectum, but this caused excitement, and spasms became so violent that we had to desist from any attempt to give an enema. This gave the patient several naps of 15 minutes duration, but apparently the only effect of the rest

was strength for even more violent spasms on each awakening.

As patient was rapidly growing weaker it was decided on consultation to bring about an abortion as gently as possible. An anæsthetic was administered and the usual method of procedure succeeded in bringing on pains. These with the spasms so added to patient's distress, that after six hours chloroform was again administered, the os dilated by digital dilatation and the uterus emptied. Good contraction followed with little or no hæmorrhage.

As soon as patient recovered from anæsthetic, violent spasms began again. It was now imperative to do something to give her relief.

After a hypodermic of ¼ gr. morphine she slept for fifteen minutes. A second hypodermic of ¼ gr. was then given and she slept for one-half hour to awaken with spasms as before. A third hypodermic of ¼ gr. was now given and under the influence of these ¾ grs. morphine, patient would sleep from ten to fifteen minutes to awake with spasms and again fall asleep.

This continued till morning, patient becoming more exhausted each time. She continued conscious through the whole course of the disease and occasionally conversed with the attendants. She several times remarked that it seemed strange for her to complain of exhaustion, but that she really could not keep still. Toward morning her heart began to weaken and it became evident that she could not long continue the struggle. Consciousness continued till within a short time of her death which occurred at 10 a.m. March 3rd.

In this case the relatives were given to understand from the onset of the attack, that the case was extremely serious and, at their solicitation, a consultation was held early before spasms had been violent, to decide on the advisability of producing an abortion at once and not waiting till patient had weakened and it had become a matter of last resort.

But after considering the question we did not feel that an operation at this stage would offer any greater chance for recovery. And indeed in reviewing the case afterwards, considering the rapid and severe onset of the disease, it did not seem that any line of treatment whatever would have held out a hope for the patient.

ARE THERE EVIDENCES OF RACE DEGENERATION IN THE UNITED STATES?

(Abstract of an address by Woods Hutchinson, M D., before the American Academy of Social and Political Science, April 16, 1909)

DR. Hutchinson shows that the prophecies of degeneration are by no means new though perhaps more frequently heard now than formerly. The general feeling fifty years ago was summed up in the remark of one Martin Chuzzlewit's contemporaries—"Everything degenerates in America. The lion becomes a puma, the eagle a fishhawk, and man a Yankee." He himself has little faith in the forebodings of ill. "The net result of vital statistics," he declared, "may be summed up by saying that at practically no age, class or social condition is the death rate in the United States more than one or two points per thousand higher than in the corresponding class in any of the European countries, and in the large majority of them, especially in infancy and childhood, it is markedly lower. Some of the Western cities and States have the lowest death rates recorded anywhere in the civilized world." Similarly the mortality lists of insurance companies show that the average duration of life in America, even thirty years ago, was from three to five years greater than that in any European country, while today it is over six years. In regard to insanity the records show less per thousand than any European country, and on further scrutiny it is found that our foreign-born citizens contribute always an equal, and in most cases, a distinctly larger percentage of their numbers to our insane asylums than any class of our native born. The charge of moral corruption he disposed of as follows: "But what will it avail us to be physically sound and mentally sane if we are morally corrupt? And upon this point all our critics, friendly or unfriendly, chant a Hallelujah chorus in absolute unison. American lawlessness, American disrespect for authority, the dishonesty of our business, the corruption of our politics, the looseness of our marriage tie—all are matters of world-wide notoriety. And here our degeneracy really seems to get itself on record, for our average of criminality is evidently higher than that of corresponding European districts, except in certain trivial eccentricities, such as wife-beating, burglary, ill treating children, thieving, drunkenness, etc. Of course, we have less than a fourth, for the most part less than a twentieth of the number of paupers and dependents, and nearly four times as many of our foreign-born become paupers here as of our native-born population; but that is no fault of ours. Our virgin soil and our fierce determination to be rich at all hazards have automatically protected us against this defect without any special intention on our part."

The future generation which the nemesis of physical degeneration is to overtake does not seem in much danger. A comparison of measurements of children showed an almost equal superiority of all children born in America to those of any nationality of foreign birth with the partial exception of German children. A step further showed that the second genera-

tion of American school children—that is, those born of American-born parents—were again above the average in both height, weight and chest measurement of all American born; and that those from families three generations or more in America had a still higher average. More interesting yet, the general scholarship and mental development of all these classes of children followed an almost absolute parallel course with their size and weight.

CORRESPONDENCE.

THE EDITORS OF THE
MARITIME MEDICAL NEWS:

SIRS—In your last issue, May 1909, re Dr. A. C. Smith, late Superintendent of the Tracadie Lazaretto, please allow me to say that your St. John correspondent is inaccurate.

Dr. Smith never lived apart from his family, because there was not the slightest reason for it, and he died from natural causes, in his home at Tracadie, N. B., March 15th, 1909, surrounded by his family, relatives and neighbours, who all cherished him.

The good Sisters (nuns) of the Tracadie Lazaretto depart this poor life like the rest of mortals, some when they can resist no more the ravages of time (one is now over eighty years old) others to intercurrent diseases, never from leprosy.

There is always a satisfactory diagnosis of the cause of death among our patients, the lepers, and the air they inhale is just as bracing as the air of St. John or elsewhere.

They live out of doors when the temperature permits and the wards and private rooms are large and furnished with the best appliances for ventilation.

We are up-to-date in everything, and all are invited to visit, who are *Thomases*.

I will not say that Tracadie is a very lively place, but it is far from being the bleakest and most lonesome place (your correspondent) in New Brunswick.

The village of Tracadie is situated on a beautiful bay, which opens into the Gulf of St. Lawrence.

It is built between two rivers, the Big Tracadie and the little Tracadie. These rivers are favorite resorts for the angler, for the salmon, trout and bass, with which they teem.

There are tourists from St. John and elsewhere who spend the summer months in their villas here.

Let the Government buy our branch of railway, and with better communication we will be satisfied.

Yours truly,
J. A. LANGIS, M.D.
Medical Superintendent
Tracadie Lazaretto.

Programme of Annual Meeting of the Nova Scotia Medical Society, Sydney, N. S., July 7th and 8th 1909.

WEDNESDAY, JULY 7th.

MORNING SESSION.

9 A. M.:

Registration—Report of Committee of Arrangements—Reading of Minutes—Reports of Committees—Appointment of Nominating Committee—General Business.

1. PAPER "Headache"
   A. R. CUNNINGHAM, M. D., Halifax
2. CASE REPORT—Some Diagnostic Problems in Pneumonia.
   A BIRT M D, Halifax
3. PAPER—Huntington's Chorea.
   W. H. HATTIE, M. D., N. S. Hospital, Dartmouth
4. PAPER—"Mastoid Disease"
   S. J. McLENNAN, M D, Glace Bay
5. PAPER—"Observations in Mastoid Trouble with History of Some Cases"
   WM. McK. McLEOD, M. D., Sydney
6. Paper—"Mineral Waters and their uses in Medicine."
   A F BUCKLEY, M D, Halifax

WEDNESDAY, JULY 7th.

AFTERNOON SESSION.

2.30 P. M.:

1. PRESIDENTIAL ADDRESS.
   A. S. KENDALL, M. D., M L A.
2. PAPER—Notes on a recent visit to the Kentville Sanatorium.
   D A CAMPBELL, M. D, Halifax
3. PAPER—"The Sanatorium, and what makes for its success or failure in the treatment of Tuberculosis."
   A F MILLER, M D, Adirondack Cottage Sanatorium, Saranac Lake, N. Y.
4. PAPER—(Title to be announced.)
   W. B. MOORE, M D., Kentville
5. CASE REPORTS—a Sarcoma of the Orbit.
   b Cataract extraction at the age of ninety years
   E. A. KIRKPATRICK, M. D., Halifax
6. CASE REPORT—
   M. T McLEAN, M. D, North Sydney

5 P. M.—GARDEN PARTY.

WEDNESDAY, JULY 7th.

EVENING.

Public Antituberculosis Meetings at Sydney, Sydney Mines, Glace Bay and North Sydney, to be addressed by members of the Society.

THURSDAY, JULY 8th.

MORNING SESSION.

9 A. M.:

Report of Nominating Committee — Election of Officers — General Business.

1. CASE REPORT—
   E. D FARRELL, M. D, Halifax
2. PAPER—"Uterine Disease"
   G H MURPHY, M. D, Glace Bay
3. CASE REPORTS—a "Sarcoma of Vagina"
   b "Chronic Cystitis—Vaccine treatment of."
   H. K. MACDONALD, M. D, Halifax
4. DISCUSSION—"The indications for operation in gastro-intestinal affections." Opened by

CASE REPORTS—Rupture of Stomach, Operation, Recovery.
M. CHISHOLM, M. D, Halifax

CASE REPORTS—a Traumatic Rupture of Stomach.
b Traumatic Rupture of Liver. Operation, Recovery.
J. S. MACDOUGALL, M. D., Amherst

JOHN STEWART, M D, Halifax, and others

THURSDAY, JULY 8th.

AFTERNOON SESSION.

2.30 P. M.:

1. CASE REPORT—
   W. J. EGAN, M. D, Reserve Mines, Sydney
2. PAPER—"Treatment of Chronic Suppuration by Beer's Method."
   R. A. H. MACKEEN, M D., Glace Bay
3. NOTE ON A CASE OF SUDDEN DEATH—
   JOHN STEWART, M. B., Halifax
4. PAPER—"The Open Treatment of Fractures"
   JOHN ELDER, M. D., General Hospital, Montreal
5. CASE REPORT—
   W. D FINN, M D., Halifax
6. PAPER—"Lessons culled from a doctor's life experience in medicine."
   A. P. REID, M. D., Provincial Health Officer

4.30 P. M.:

Visit to Coal Mines, Steel Works, etc.

THURSDAY EVENING,

HARBOR EXCURSION.

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1st Vice-President, J. A. SPONAGLE, M. D., Middleton
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❖ ❖ ❖

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The so-called peptonates and albuminates have to undergo in the organism before absorption complex chemical changes, in contradistinction to the inorganic mineral salts which are immediately absorbed as such, at a great saving of time and physiological energy. When a tonic and hæmatinic is indicated, therefore, it is best to prescribe Wheeler's Tissue Phosphates, a standard remedy with over a half-century of success benind it. A sample with literature will be sent free to any practitioner addressing the T. B. Wheeler, M. D. Company, Montreal Canada.

❖ ❖ ❖

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Tincture of iodine irrigations in solution of from one to four drachms to a quart of hot water is said to be one of the safest and best antiseptics that can be used in gonorrhœa. The strength of the solution and number of irrigations a day depend upon the stage of the disease. To keep the urine bland and non-irritating sanmetto should be administered in teaspoonful doses three or four times daily throughout the treatment. In case of extreme acidity of the urine one of the potassium salts will be helpful.

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INFLAMMATORY DIARRHŒAS.

By William Edward Fitch, M. D.,

Lecturer on Surgery, Fordham University School of Medicine, New York City.

In discussing the subject we will speak of inflammation of the small and large intestines as a single disease. And without taking up the reader's valuable time in discussing etiology or symptomatology we will proceed at once to consider the medical treatment. The first step in this direction is to thoroughly evacuate the intestinal contents, and for this purpose no drug or combination of remedies has in our hands given the satisfaction that calomel has. Usually for a child of two years three grains are ordered rubbed up with sugar of milk and made into three powders and one administered every hour until all are taken, after which an old-fashioned dose of castor oil is given, which will produce several copious actions from

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500	Moirs, Limited	6	July 2, 1924	100	6
500	Stanfield's, Limited	6	Jan. 1, 1941	100	6
100	Robb Engineering, First Mortgage	6	Aug. 15, 1930	99	6⅛
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the bowels. Then I order a high enema composed of the following: Glyco-Thymoline one part, lime water one part, and distilled water two parts; about one pint of this solution is thrown well up into the bowel through a long rectal tube and allowed to remain until evacuated.

Experience has taught me that Glyco-Thymoline exerts a beneficial action over the inflamed intestinal mucous membrane. For a child under two years old I order thirty to forty drops in a teaspoonful of water, administered internally every four hours and have found that it acts as an intestinal antiseptic and astringent, not affecting the normal digestive juices. Glyco-Thymoline has a curative action when administered in catarrhal conditions of the bowels. It acts not only by lessening secretions, but also by retarding absorption of toxins and inhibiting septic organisms restoring the integrity of the intestinal mucous membrane. We know that the principal lesions in this class of intestinal disorder are located in the colon and that this part of the alimentary tract is the seat for the rapid absorption of poisonous toxins. When this idea first occurred to me I at once con-

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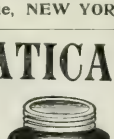

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cluded that lavage of the bowel with an antiseptic (alkaline) solution was rational and would prove a valuable factor in the treatment of this class of enteric disorders. Lavage not only removes fecal accumulations and products of fermentation, but it clears the mucous membranes of the bowels, thereby promoting rapid healing. Another point to be observed in the successful handling of these little patients is the dietetic management.

THE CINCINNATI MILK SHOW.

W. A Evans, Chicago, (*Journal of the American Medical Association*, June 5), furnishes a description of the Cincinnati Milk Show, which has just been brought to a successful close by the milk commission of the Cincinnati Academy of Medicine. It is only within three years that the legislature of Ohio put a stop to the feeding of distillery swill to dairy cows, and the recent exposition shows the results of this salutary change. The underlying principle of the exposition was the education of both the consumer and the producer and the co-operation of the United States Department of Agriculture and of a number of local organizations was secured. The Department of Agriculture furnished valuable exhibits and was represented by a number of experts, who explained the various phases of the exhibit. A valuable object lesson was the miniature reproduction of the dairy equipment of one or two model dairy farms in Kentucky and New Jersey, and a most interesting collection of pictures in the same line contributed by the Mary-

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For information and the Annual Announcement, apply to

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EXTRA MURAL LECTURES.

E. MCKAY, B. A., Dal.; PH. D., J. H. U., Professor of Chemistry at Dalhousie College.
————————, Lecturer on Botany at Dalhousie College.
————————, Lecturer on Zoology at Dalhousie College.
A. S. MACKENZIE, PH. D., Professor of Physics at Dalhousie College.

land Board of Health. Examples of both sanitary and insanitary dairy management were displayed. Charts showing the progress of the milk from producer to consumer in the beginning of the work of the milk commission was extremely instructive. Collections of dairy implements and apparatus were also exhibited. The show was so timed as to afford opportunity for physicians attending the Ohio State Medical Society to attend and share in the educational advantages afforded. They were not slow in availing themselves of this, and health officers of neighbouring states and even lay members of boards of health were also in attendance. The producers took an active interest and, though entries of exhibits were limited to Cincinnati territory, their number was larger than that at another city where a national dairy show was held last year, in which entries of all grades of milk were allowed from all parts of the country. The quality of milk varied greatly, but the majority of the entries were fairly clean, and the producers of unclean milk were even more benefitted than the prize winners in that they learned, just where their products were deficient. Dairy buildings as inspected by government officers were found to be sadly in need of reconstruction, but suggestions for betterment were kindly received by the dairymen. The dairy institute, which was held for two days, as a school for dairymen, had a gratifying attendance, and the papers brought out most interesting discussion, in which the dairymen took an active part. A better mutual understanding of conditions between the producer, dealer, and consumer was a natural result. It was evident to the

J. H. CHAPMAN,

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students of the milk problem that the producer was not getting what he should for his product, and that the consumer was not getting the quality of milk he deserves. The bringing together of the consumer and producer can have no other result than an improvement in the quality of milk and more of it at a fair price. The paper is illustrated.

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A STUDY OF URINARY ACIDITY AND ITS RELATIONS.

Henry R. Harrower of Chicago, Ill., considers a quantitative determination of the acidity of the urine in a twenty-four hours' specimen of great value, and absolutely necessary in the treatment of most diseases. The index of urinary acidity varies with different states of metabolism, especially in conditions of autointoxication. In 35 per cent. of the cases examined by the author albumin and casts accompanied high degrees of acidity. There is a distinct association between high acidity and putrefaction of intestinal contents; in diabetes an excess of acid is the rule; the reduction of acidity is an important prophylactic measure. The best method of estimating acidity is by titrating a definite quantity of urine with an alkali solution of known strength, using phenolphthalein as an indicator.—*Medical Record*, June 5, 1909.

Some persons go so far as to advocate the pasteurization of all market milk in plants controlled by the municipalities. But there are objections to the process as well as advantages, and it is doubtful if it should be adopted except where special need ex-

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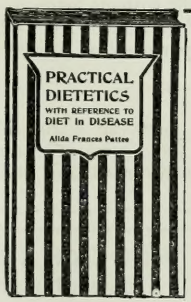

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ists. An important objection is that some of the worst types of bacteria are not killed by pasteurization temperatures, and these grow more rapidly in pasteurized than in raw milk, because the "sour-milk" organisms, which would be antagonistic to them and hold them in check, have been largely destroyed by the heat. Thus it is possible for objectionable and even dangerous changes to take place in pasteurized milk without being apparent.—*Farmers Bulletin* No. 42, United States Department of Agriculture.

"No diarrhœa, however slight, in infants during the summer heat should be lightly regarded and still less be considered as even salutary. A castor-oil purge and the withholding of all food for a few hours will promptly cure most of such simple cases and prove a safeguard against the acute disease. The few simple measures mentioned will, I believe, if carried out in summer weather, lead to a large reduction in the number of cases and their attending mortality."—Dr. J. A. Coutts in *The Lancet.*

ERRATUM:—In last issue the name of the author of the paper on "Post Partum Hæmorrhage," viz., Dr. N. S. Fraser, of St. John's, Nfld., was inadvertently omitted. The NEWS apologises to Dr. Fraser for this omission.

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